ARMY

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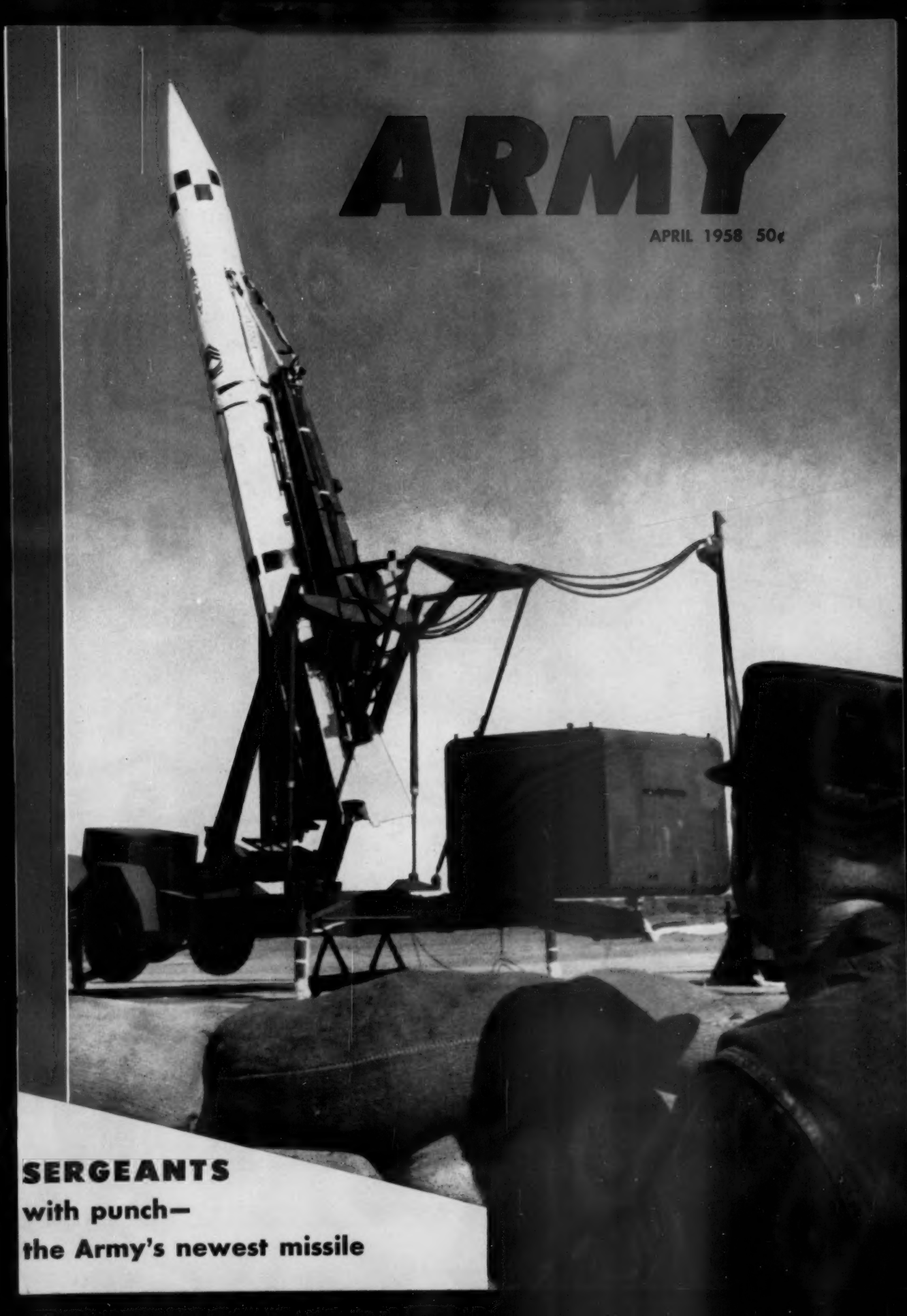

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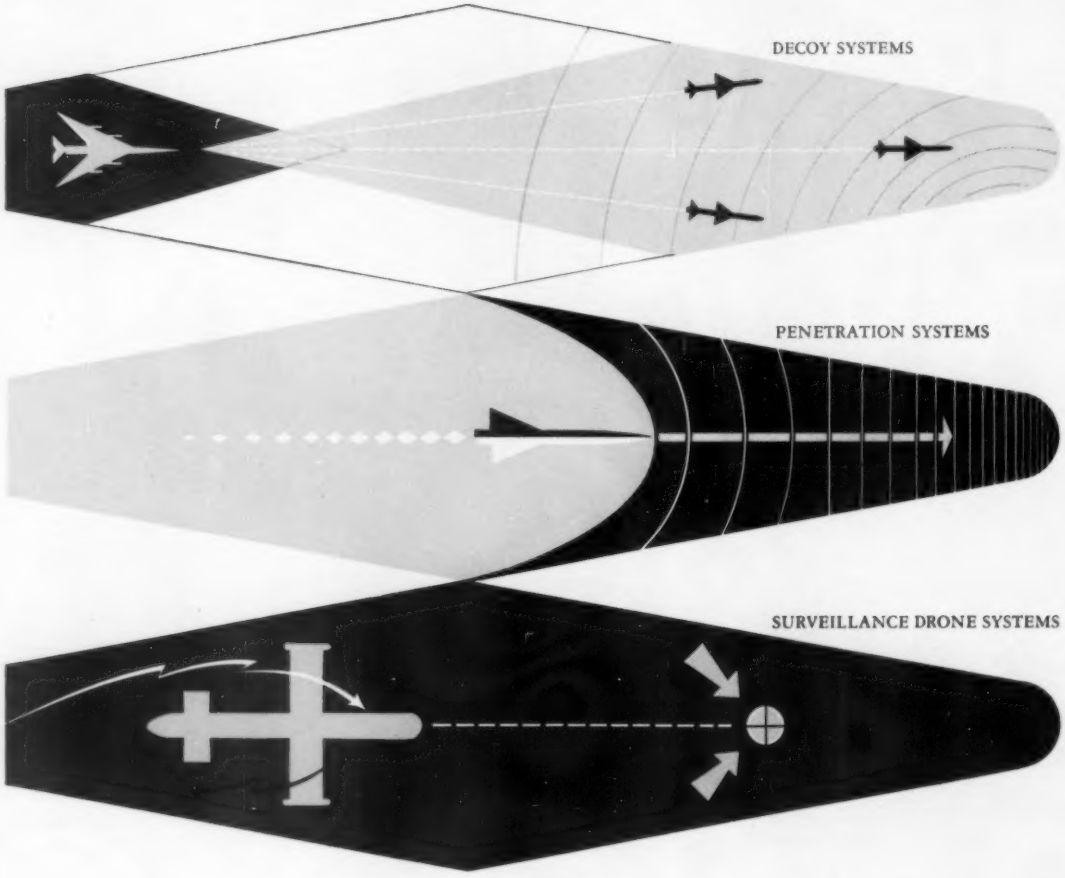

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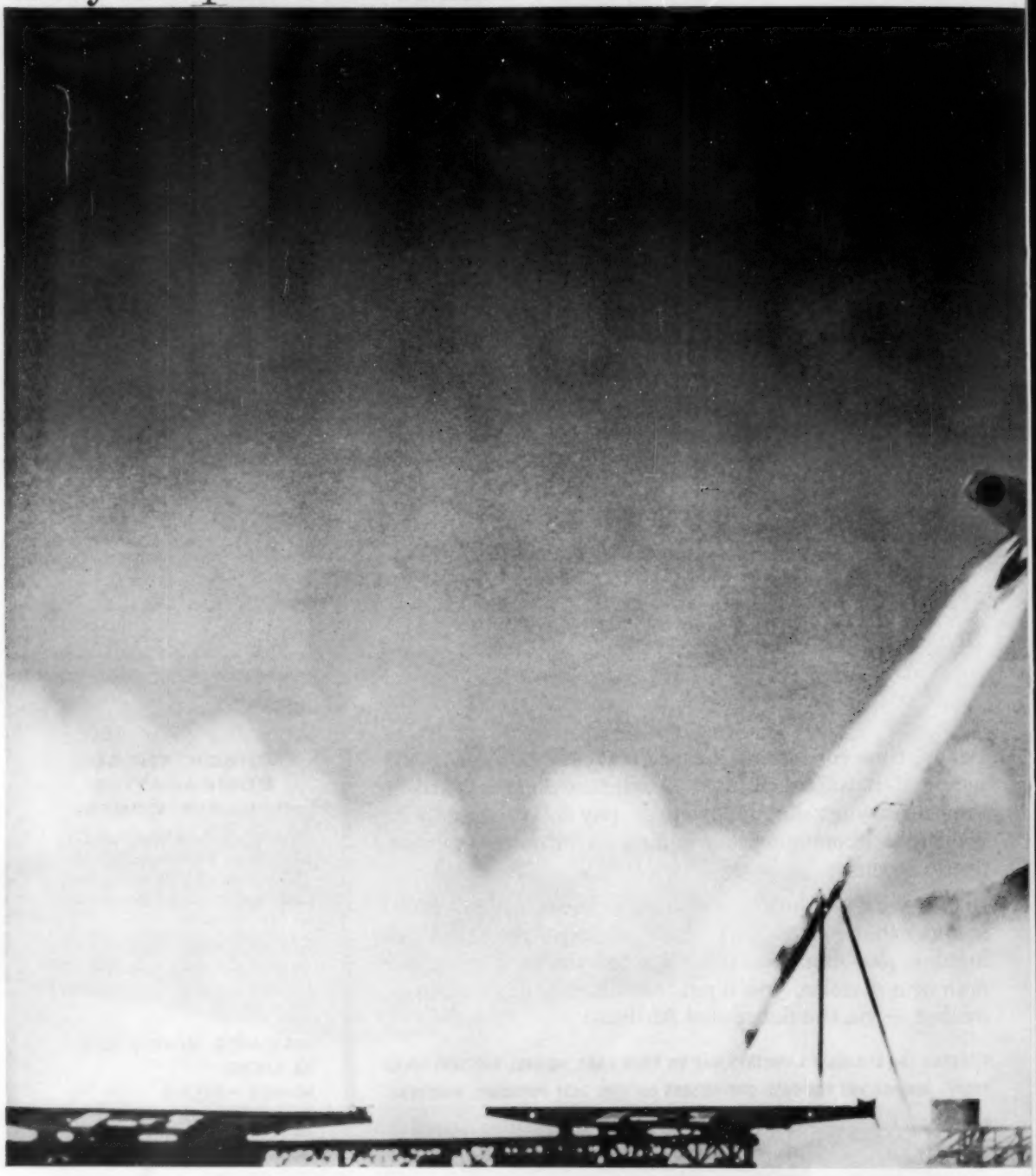

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Vol. 8 • No. 9 • April 1958

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ARMY is a professional military magazine devoted to the dissemination of information and ideas relating to the military art and science representing the interests of the entire Army. *ARMY magazine strives to—*

Advance man's knowledge of warfare in the fields of strategy, tactics, logistics, operations, administration, weapons and weapons systems.

Advance man's knowledge and understanding of the soldier as an individual, as a member of a trained unit, and as a member of the whole Army; emphasizing leadership, esprit, loyalty, and a high sense of duty.

Disseminate knowledge of military history, especially articles that have application to current problems or foster tradition and create esprit.

Explain the important and vital role of the United States Army in the Nation's defense and show that the Army is alert to the challenges of new weapons, machines, and methods.

Advance the status of the soldier's profession.
—AUSA By Laws, Par. 13 Article II

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THE MONTH'S COVER

Sergeant—the Army's newest surface-to-surface missile—was unveiled recently at White Sands Proving Ground, N. M. For more details on this missile, see page 32. *Army Signal Corps photo.*

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LIFTING THE LANTERN—An HR2S-1 (Sikorsky S-56) from the Second Marine Aircraft Wing places a 1740-lb. lantern atop a new 142-foot lighthouse at Cape Fear, N. C., with only 6 inches of clearance on the sides. Hovering stability for this difficult job was provided by Sikorsky's Automatic Stabilization Equipment in the HR2S-1.

52 RESCUED—The crew of the grounded French freighter *Pei-Ho* were flown ashore near Casablanca, Morocco, by an H-19 (Sikorsky S-55) of the Air Force's Air Rescue Service, which is on duty around the world. All 52 of the crew were rescued. The H-19 came from the U. S. base at Port Lyautey.

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THE MONTH'S MAIL

Ground Strength of the Nation

• Congratulations on your excellent editorial, "Words versus Deeds" [February]. It is a fine piece of work: articulate, positive, restrained, effective.

This fall, and in the foreseeable future, my votes will be cast for men who work for, and vote in the Congress for, a strong national defense which emphasizes a presently forgotten and ignored basic: the ground strength of our Nation.

MAJOR CHARLES WEST
Jackson Heights, N. Y.

February Number

• I wish to compliment you on the superior February issue of ARMY. Every article is outstanding. I especially liked "Minority Report on Command Duty."

AUSA is rolling right along. So far as I am concerned, it's the best thing that could have happened to the Army at this time.

BRIG. GEN. A. T. MCANSH
Fort Campbell, Ky.

It Needed Saying

• Congratulations on "The Stifling Embrace of Administrative Staffs," by Colonel Frank Kowalski [February]. It has needed saying for a long, long time. It shows a sorry picture indeed, and it is too bad it exists in a profession which has always considered itself the expert in organization.

After correctly exposing "a most curious practice," "the false and contradictory dogma," and "a kind of mystic logic" in the workings of the two separate concepts of command and staff, the article appears to be content to go on under a checkrein of "a clear and positive philosophy of decentralization." It does say, however, that "we must investigate our basic organizational structure and our fundamental thinking," and perhaps the checkrein is something to be applied until the investigation finds a cause.

If the investigation penetrates deep enough, it will find that the "mystic logic" about staff is but a pseudo-rationalization of the effect of a fictional basic premise; a premise that there can be, today, a one-mind head of an organization. In the pastoral era, yes; in an agrarian civilization, yes; but in an industrial civilization, no.

Commanders, and those aspiring to command, study Napoleon and Grant and Lee, and try to emulate them as commanders. *They* could stand on a hilltop and survey the scene; *they* could entertain the totality of the situation in one mind; *they* could estimate total situations and reach decisions; *they* could do all these things—in an agrarian civilization.

But the one-mind head of today's organization finds himself on the verge of being submerged in the ever-mounting tidal wave of technology and specialization which started about fifty years ago. To keep his head above water as the wave grows higher and higher, the one-mind head must elevate himself by adding layer upon layer to the support beneath him. Hence staff.

The tidal wave mounts higher and higher at an ever-increasing rate. How long can the one-mind head keep adding layers to the support beneath him? Until it topples, I suppose, in a crisis, thus causing a deep searching into why—as did Sputnik.

Let's face it *before* the crisis this time. The one-mind head must yield to a compound mind as one entity, as an indivisible unit; and there shall be no more the two separate concepts of "command" and "staff." The compound mind will be found to have the buoyancy to keep itself afloat without artificial support.

FM 101-5 has tried to say it for a long time; it has said and still says that the commander and his staff should be a single entity. But that's as far as it went—saying it. It is not done in practice, and it can never be done so long as we perpetuate the two separate concepts.

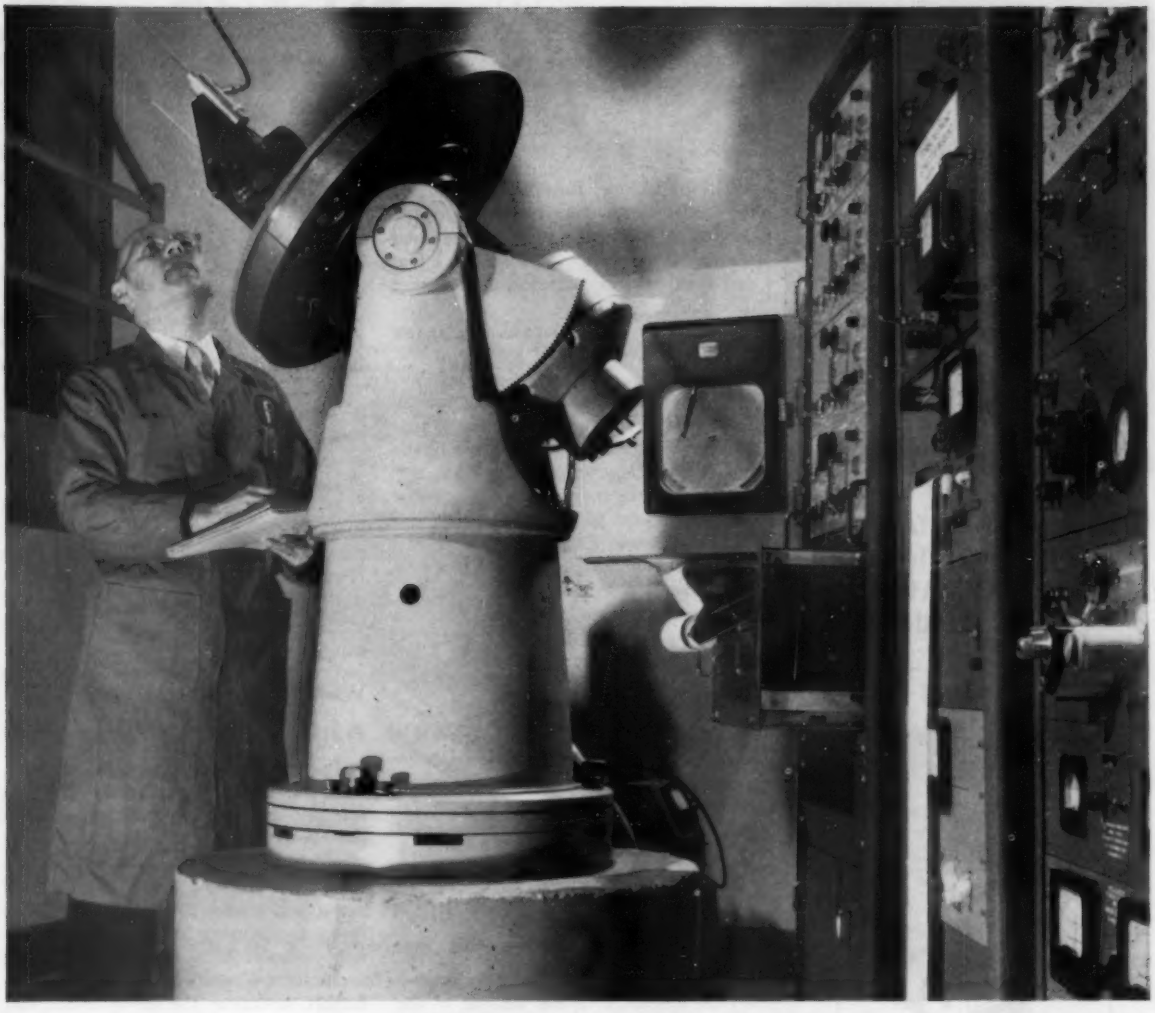
How to design the compound mind? How would it be taught? How would it work? That is another story, but this much I know: it *can* be designed, it *can* be taught, and it *does* work.

COL. LELAND B. KUHRE
Acad. of Org. Science
San Antonio 1, Texas

• Colonel Kowalski is a gentleman, a scholar, and a true friend of the downtrodden subordinate commander.

I lost my last job as a staff officer by being rash (or courageous) enough to challenge the system and to recommend to my commander, in my staff capacity, that the rest of his staff and his "fantastic latticework" of technical channels were strangling his subordinates.

Please pass this letter on to Colonel Kowalski. As staff officers at different



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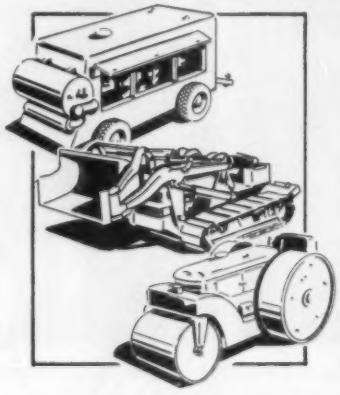

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echelons we once tangled bitterly over a question of delegated authority. From the brilliance of his exposition of this mess I can only conclude that I was wrong.

COL. TECH SERVICE

Washington, D. C.

• I think Colonel Kowalski has touched the tender spot in the wrongs of our present system. His article should be required reading at all service schools, but I fear that those now in command do not want their faults studied.

COL. C. C. CARTER

Naples, Fla.

• Colonel Kowalski's article was wonderful. This is the type of thing that is descriptive of a condition which I have encountered in some of my assignments. In one instance it was hard for some of our staff officers to realize that they did not have command responsibility, and that the commanding officer did not need the protection of their personal inspections of subordinate units to continue to function as a CO. As a matter of fact, some of the staff were never convinced, and had to be ordered to stop meddling with the commander's prerogatives.

However, I noticed with considerable consternation in the Command Management class which I attended, that approximately half of the officers present believed that the general staff officers, G1 through G4, had the right of command.

COL. ERLING J. FOSS

Fort Gordon, Ga.

Man is the Decisive Factor

• I was greatly impressed by General Wyman's remark in his address to the National Convention of AMVETS [January]: "So no matter how high our minds soar, the decisive factor in our response is *man* on the ground and his leadership there."

In the modern world, the Army is not what it was in the days of our great leader, George Washington. It has much greater capabilities and has made the possibility of a future war seem to many as being a complete disaster and destruction of the entire globe. As Secretary Brucker has said, "Certainly neither nation will initiate a global nuclear exchange that would result in its own destruction." That remark also was quoted in the January issue.

We now know that man's latest challenge is in space. Since the Soviet Union has sent its second satellite into space, the eyes of many Americans have seemed to be blackened by fear that we are very much behind the Soviets in military might. I, as an American citizen and soldier, cannot believe this. I am neither scientist nor missile master-mind, but I can do my own thinking, and to an American soldier that is our most powerful weapon—maybe not in a physical sense, because we know the destructive power of the atomic weapon. But in event of hostilities with the Soviets, the one thing that could prove fatal to our enemies—and I think it has been proved in the past—is the fact that the American fighting man has something to fight for. Freedom has always been taken for granted in America. What does the Russian soldier have? A family, but what else? No freedom to speak of. He is only a puppet who will fight because he has to. He has no goal except what has been brainwashed into him by the Communist way of thinking. Remember what havoc a few freedom fighters in Hungary caused for the Soviets, and imagine what we and our allies, being free peoples, might also do.

Of course we must continue to explore space and invent new weapons. But our greatest weapon was invented when the Declaration of Independence was signed.

I think we must continue to bear in mind General Wyman's words: Man is decisive.

SFC JOHN W. KEARNS

Washington, D. C.

Pentomic Divisions and Modern War

• Like Major Ross in the January issue, I am puzzled by what I read of the new infantry division. My conclusion, from the weapons set-up, is that the battle group simply isn't meant to fight in extreme terrain and that the increased motorization and partial mechanization indicates planning for operations in terrain favorable to motor movement. This assumption serves only to emphasize a further weakness: the use of nonorganic armored personnel carriers and the combining of tracked armored personnel carriers with wheeled unarmored weapons carriers.

The division can mount one battle group on personnel carriers. Why not make this group armored infantry? This would unify responsibility for maintenance, training and tactical employment at the user level; it would provide track-mounted self-propelled mortars for infantry; and would result in a greater degree of tank-infantry integration in mounted operations.

If this is not the best solution (I don't say it is), why not have independent cavalry brigades for use in mounted operations in nuclear war? (I say *cavalry* because I think its modern meaning connotes combined-arms integration at the lowest possible level.) It might be desirable to unite this maneuver element with the destructive arm (artillery), in a cavalry-artillery division.

It seems to me that in any situation stressing the division's mounted capability for any length of time, the division

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will become, in effect, a miniature corps of one miniature infantry division and one miniature armored division; for once a given battle group has successfully completed a mounted mission, to use any other group in subsequent operations will be to break up a combat-tested team and to substitute for it what can at most be only second-best. Now if this is how things are to end up, why not start out that way?

Aside from the possible existence of still-secret weapons, the most probable explanation that occurs to me is that these inconsistencies and weaknesses are the inevitable result of an attempt (economy-dictated?) to hammer out one type of organization to fill both the infantry's role in "conventional" warfare and the cavalry's role in nuclear warfare. I don't see how such a compromise can succeed, especially when subjected to the strains of mobilization.

(Another explanation might have to do with the disproportionate amount of publicity given the coining of the word *pentomic* in relation to that given substantive features of the division, and with the fact that it all seemed to come at a time when the Army seemed most anxious to show that it too was in the nuclear game. I think such a course of action may well have been justified, but things should stop short of self-deception. In any event, this is predicated on my belief that the new division is, as we used to say, combat ineffective, which I truly hope someone will show is erroneous.)

STEPHEN T. MEADOW
Paterson, N. J.

Basic Training Instructors

• Specialist John R. Roberson's "In Praise of Basic Training Instructors" [ARMY, January 1958] gave me great pleasure. All too often one hears little but criticism of Army instruction, where it is my considered opinion that it is of higher quality as a whole than that found in any of our institutions of learning. This article should be given wide publicity, and I ask the privilege of having it reproduced in my local press. I even think the Association should offer it to such a publication as *The Reader's Digest*, as it carries a great amount of interest for the general public.

I always read ARMY from cover to cover and find that the January issue is one of the best. The article by General Clarke stimulates forward thinking and imagination. I think it would be most beneficial to have other commanders present their ideas on the field army of the future at intervals.

BRIG. GEN. GEORGE W. TROUSDALE
Hq. 39th Inf. Div, LaNG

We Are Being Undermined

• In following very closely this country's policy as regards our Army, I have (like General Gavin) come to the painful conclusion that we soldiers are being slowly but inevitably undermined in relation to our total defense policy. If the United States is unwilling to sacrifice part of her high standard of living toward the upkeep of an adequate ground force, then she does not deserve the right to enjoy her present freedom. I have seen the U. S. Army deteriorate from twenty-eight divisions in 1952 to an insignificant fourteen as of this coming year.

What in heaven's name can we fight Russia's 175 divisions with, except for a delaying action by Seventh Army in Germany? Have we lost the nerve to defend our heritage with every means at our command? There is no substitute for the ground soldier who must take and hold the enemy's territory, and in this way assure our complete victory.

If the Army's role in defense of our country is to be further diminished, please let me know so I can make plans for the future.

DISILLUSIONED SOLDIER
Fort Bragg, N. C.

Soldiers of the States

• Colonel Elbridge Colby's statement in his review of Professor W. H. Riker's *Soldiers of the States* [February], that "It has had to avoid . . . some of the real and major achievements of the National Guard . . ." is something of an understatement.

Professor Riker's opening charge that the Guard, because of its state rather than federal character, violates unity of command—a charge that falls apart when true tactical and strategic unity of command is considered—is but the first of the hundreds of similar broad and unsupported charges that pack the book. Though he finds it convenient to omit the achievements of the Guard, the author finds room to quote some of its most virulent critics verbatim. The bias of the book is further heightened by the exclusion from the author's "List of References" of any current publication favorable to the National Guard. Any claim to fairness or scholarship that the book might have had disappears completely in a welter of serious errors of fact. The claim that not a single National Guard division served on active duty during the Korean emergency is but one.

Far from being an "objective analysis," *Soldiers of the States* is just the sort of muddy, sloppily researched "history" that has hampered a true understanding of the National Guard and its place in the American military tradition.

CAPT. WILLIAM V. KENNEDY
Fort Holabird, Md.

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The Caribou 2½ Ton Flying Truck

Since 1951, the de Havilland Aircraft of Canada has pioneered in the design and development of STOL fixed wing aircraft for the United States Army.

58-3

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THE DE HAVILLAND AIRCRAFT OF CANADA LIMITED
DOWNSVIEW, ONTARIO, CANADA

A CONCEPT OF SCIENCE

Five years ago, The Martin Company conceived a unique undertaking in the field of pure science which grew out of a belief that our own and our country's resources in creative scientific research must be greatly enlarged and cultivated.

We believed that the country—and the Company—that concentrates on short-range material achievements, without a deep concern for the creative source of tomorrow's even greater achievements, will have no tomorrow.

It is now three years since that belief motivated management's action with the foundation of a program in pure research. Known as the Research Institute of Advanced Study, RIAS is now a substantial organization staffed by scientists who are working in many fields, including theoretical physics, biochemistry, metallurgy and mathematics, without short-range applied research requirements.

Today, the increasing appeals to industry and the nation for accelerated activities in basic research give the RIAS story a special significance. For creative research in pure science is the true life source of our technological security—the "seed bed" from which our national strength shall continue to grow.

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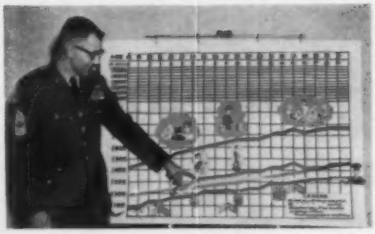


MSgt Kelley illustrates the financial advantages of military life

NONCOMMISSIONED RESPONSIBILITY BEGETS PRESTIGE

THE tremendous increase in equally ranked individuals in today's Army makes it difficult for any one man to stand out, but outstanding noncommissioned officers have opportunities to perform important tasks. The following examples bear out this point.

In October of 1957, Master Sergeant Brady O. Kelley, in grade less than two years, was sent as a lone emissary of the Department of the Army to Hawaii, Japan, Korea and Okinawa. His job was to persuade senior commanders to accept and use in their commands a new reenlistment booster, the Army Career Team Presentation. This is a fifty-minute oral and visual "persuader" that calls to the attention of men about to be discharged the many benefits of a career in the Army.

Similarly, on the other side of the world, Sergeant First Class Raleigh M. Shell was sent as the Department of the Army's ambassador to commanders in Italy, France, and Germany. He had personal interviews with most of the senior commanders, interviews marked by notable success.

These two men were on their own, entrusted with an important mission, and the entire responsibility for success or failure was theirs. They came through as expected and their accomplishment increased both their own personal prestige and that of the entire noncommissioned officer corps.—Lt. Col. W. H. HOLDRIDGE.

SFC Shell demonstrates the benefits of an Army career

THE ARMY'S MONTH

Daley Did It. Army's Director of Special Weapons, Maj. Gen. John P. Daley, made a rousing defense of the Army's achievement and role in guided missiles at the Air Force Association's Jet Age Conference in Washington. His frankly partisan address, which followed several that tended to build up the Thor IRBM at the expense of the Jupiter IRBM, was the talk of the conference and received enthusiastic applause. Punch line: "I come to praise Jupiter, not to bury it."

Approval for CDEC. The Army's Combat Development Experimentation Center (CDEC) at Fort Ord, Calif., a field laboratory which goes in for novel and ingenious experiments, is an "unqualified success" says Dr. Ellis A. Johnson, Director of the Army's Johns Hopkins University Operations Research Office, who was asked by Gen. W. G. Wyman, CG, CONARC, to visit CDEC.

LOGEX 58. The Army's annual logistical command post exercise, LOGEX 58, at Fort Lee, Va., 11-17 May, will give approximately 6,000 participants an opportunity to solve the logistical problems involved in a theoretical wartime operation in Western Europe.

The players are advanced course students from all technical and administrative service schools. Key staff and command posts will be manned by selected personnel from the Department of the Army; Headquarters, CONARC; the Continental Armies; the Command and General Staff School. The exercise is under the supervision of CONARC.

Cool Pockets. Summer cotton khaki uniform shorts will have nylon mesh pockets that are cooler than pockets of cotton drill, as soon as existing stocks of cotton drill are used up.

Mutual Aid. General Taylor recently commended the Army Mutual Aid Association for writing more than 100 million dollars worth of insurance in the Army. "Now that career reserve officers may become members, the Army Mutual is truly the life insurance representative of the professional Army officer," General Taylor said.

Trend to Intramural Games. The directive calling a halt to All-Army sports sparked a new athletic program at Fort Leonard Wood, Mo., where "big time" service teams have flourished. Designed to increase individual participation, the new plan stresses accelerated intramural competition at the company, battalion and regimental levels, and provides facilities for more than fifteen individual and team sports—from darts to football. All trainees, officers and permanent party are encouraged to compete intramurally. Trainees aren't permitted to play on post teams. Under this plan each regiment will provide outdoor facilities for baseball-softball, football-soccer, track and field, horseshoe and volleyball facilities, and indoor facilities for basketball, volleyball, darts, badminton, weight-lifting, wrestling, boxing and gymnastics.

Companies will provide outdoor facilities for basketball, volleyball, badminton and horseshoe pitching, and indoor facilities for table tennis.

The Army Remembers. Family and friends long buried, the empty loneliness of old age turned the memory of 87-year-old Herman Buckow, of New York City, back sixty years to his experiences in the Spanish-American War and the

GENERAL OFFICER SHIFTS

Maj. Gen. ROBERT H. BOOTH to USCONARC . . . Maj. Gen. EUGENE F. CARDWELL to USAREUR . . . Maj. Gen. NORMANDO COSTELLO to Eighth U. S. Army . . . Maj. Gen. JOSEPH H. HARPER to Fifth U. S. Army . . . Maj. Gen. WILLIAM W. QUINN to OACSI . . . Maj. Gen. THOMAS J. SANDS to Deputy Commandant, AFSC . . . Brig. Gen. EARLE F. COOK to OCSIGO . . . Brig. Gen. ROLAND H. DEL MAR to Allied Forces, Southern Europe . . . Brig. Gen. CHARLES S. D'ORSA to USAREUR . . . Brig. Gen. RICHARD J. MEYER to USAREUR . . . Brig. Gen. MILLER O. PERRY to Fort Benning . . . Brig. Gen. LYLE E. SEEMAN to ODCSLOG . . . Brig. Gen. JOHN F. R. SEITZ to First U. S. Army . . . Brig. Gen. WILLIAM WHIPPLE to SW Division Engineer . . . Brig. Gen. ALEXANDER M. WILLING to U. S. Army, Japan.

Retirements. Lt. Gen. JAMES M. GAVIN . . . Maj. Gen. MARTIN E. GRIFFIN.

SKYHOOK, RESCUE, MARINES . . . This horsecollar is a beautiful sight to a leatherneck who is floating around in the briny, or waiting rescue from the boondocks. It's a welcome sight especially because he knows there's a Marine Corps chopper on the other end. Having a rescue helicopter around is SOP with the Marines, and many a pilot has come back to fly again because the Corps takes such care of its own. Kaman helicopters have never graced Montezuma's halls, but they've been almost everywhere else . . . with the Marines.

THE *KAMAN* AIRCRAFT CORPORATION

BLOOMFIELD, CONNECTICUT

Philippine Insurrection. Out of his loneliness he wrote First Army headquarters a few months ago to ask if his old outfit, Company G, 13th Infantry, was still in existence. It isn't but something in the old soldier's letter moved some First Army officers to visit him. Mr. Buckow told them of the "Old Army" and accepted their invitation to attend a First Army review at Governors Island later this spring. A few days later he died. In his will was a request that a flag be draped over his casket and that a rifle salute be fired over his grave. First Army complied.

British Army Reorganization. The newly streamlined British Army's basic formation will be a self-contained brigade group of all arms. This formation is best suited, British authorities believe, to the contingencies of cold, limited or global war. An Army memorandum to Parliament states: "In cold and limited war we need a small self-contained formation which can move quickly . . . and can operate effectively on arrival. For global war under nuclear conditions small formations are also necessary, but they must be of the right size and balance."

Britain is also training two guided missile regiments to work with the surface-to-air guided missile, Thunderbird. Both will join the British Army of the Rhine.

Shooting Scheduled. Dates and locations of the annual Army major command rifle and pistol championship matches have been announced by Headquarters, USCONARC:

First Army	28 April-3 May, Fort Dix, N. J.
Second Army	1-5 May, Fort George G. Meade, Md.
Third Army	21-26 April, Fort Benning, Ga.
Fourth Army	28 April-3 May, Fort Hood, Tex.
Fifth Army	5-9 May, Fort Riley, Kan.
Sixth Army	Pistol 14-18 April, Fort Ord, Calif.
	Rifle 30 March-4 April, Fort Lewis, Wash.

The Army Rifle and Pistol Championships will be held 26 May-7 June, at Fort Benning, Ga., and the National Matches, 7 Aug.-6 Sept. at Camp Perry, Ohio.

Sabre Hawk. SEVENTH ARMY HAS BIGGEST WINTER EXERCISE SINCE 1945

More Sabre Hawk on Page 18

A forest of signs near the Hq CP of the 11th Airborne Division is a picture story of the organized complexity of modern war.

The busy switchboard of Co. A, 143d Signal Bn., 3d Armored Div.

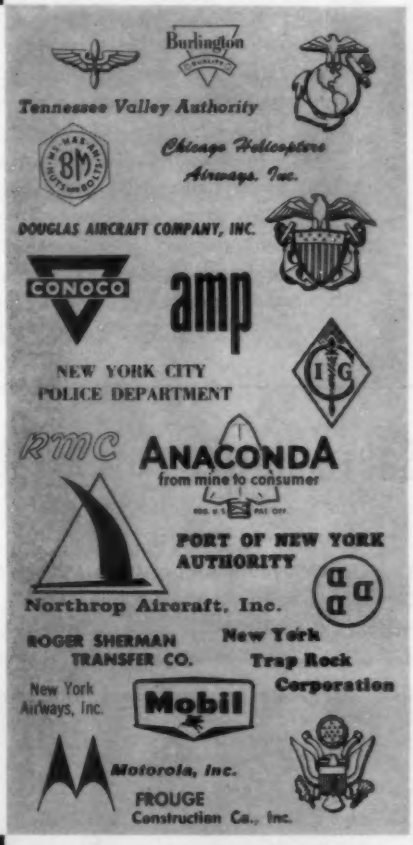
THE BELL.. WORLD'S LEADING HELICOPTER

..in O.D.'s or in Civies

In civilian life as well as the military, the Bell is the world's most widely used helicopter. Bell has produced more helicopters than any other company in the world.. sold more commercial helicopters than any other manufacturer.

Just this January, Bell produced its 2,000th Model 47 helicopter.. the series that includes the famous Army Sioux. Just as the Sioux distinguished itself on the battle front, the Bell 47 G-2 has distinguished itself on the business front. Today, there are over 700 Bell helicopters in commercial use in 52 countries of the world.. more Bells than all other helicopters combined.

Because the Bell has proven dependability based on more than 2,500,000 hours of flying experience ..because it has the most advanced operational features..the Bell is the pacesetter in the helicopter field. And because it is volume-produced, it has the lowest initial cost..lowest maintenance cost..making Bell the *best buy* in the field!



Watch "WHIRLYBIRDS" on TV ..consult your local paper for time and station.

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BELL is *First Choice* With Many of America's Best-Known Companies

These are just a few of the top names that are discovering hundreds of cost-cutting uses for the Bell.

SUBSIDIARY OF BELL AIRCRAFT CORPORATION

FORT WORTH, TEXAS

Challenge Accepted. "Operation Challenge," the project launched by CONARC in March 1957 to encourage enlisted men with high leadership potential to compete for commissions in the Regular Army, Reserve and National Guard, has produced excellent results. During the first five months, area commanders reported, 226 enlisted men obtained commissions, and 737 applications for commission are pending. The program has increased interest in pre-commission extension courses among men about to leave the Army for Ready Reserve and National Guard unit training.

Man-to-Man. Graduation speakers at the Armor Noncommissioned Officers' course at the Army's Armor Center are outstanding noncommissioned officers rather than commissioned officers. First noncommissioned officer to address a graduating class was Master Sergeant Frederick L. Shawhan, sergeant major of the Armor Center.

Back to the Line. The Department of the Army recently completed a two year program of reassigning some 20,000 noncommissioned officers having previous combat experience or training from surplus noncombatant-type jobs back to the combat arms. When the program began, the Army had a surplus of 4,000 military policemen; 3,500 cooks, bakers and meat cutters; 5,000 clerks, and 2,900 motor pool people in senior

1958 REUNIONS

3d Armored Division. 24-26 July. Waldorf-Astoria Hotel, New York City. Write Paul W. Corrigan, 80 Federal St., Boston 10, Mass.

4th Infantry Division. 31 July-2 Aug. Henry Hudson Hotel, New York City. Write George McIntyre, 330 Commonwealth Ave., Trenton, N. J.

7th Armored Division. 15-17 Aug. Penn-Sheraton Hotel, Pittsburgh. Write Johnnie Walker, 375 Valley Road, Haworth, N. J.

9th Infantry Division. 31 July-2 Aug. Hotel Deshler, Columbus, Ohio. Write Arthur R. Schmidt, 69-20 69th St., Brooklyn, N. Y.

11th Armored Division. 14-17 Aug. Hotel Lowry, St. Paul, Minn. Write Harry Walsh, 475 Cedar St., St. Paul, Minn.

94th Infantry Division. 17-20 July. Hotel Manger, Cleveland, Ohio. Write Paul R. O'Brien, 1744 Oakmont Road, South Euclid 21, Ohio.

106th Infantry Division. 24-26 July. Bellevue Stratford Hotel, Philadelphia, Pa. Write John Gallagher, PO Box 106, Blandon, Pa.

Sabre Hawk. U. S. AND NATO COMMANDERS . . . BARBED WIRE . . . ARMOR

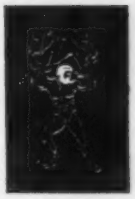
More Sabre Hawk on Page 20

The CG of Seventh Army, Lt. Gen. Bruce C. Clarke, has distinguished visitors: Gen. H. I. Hodes, CG USAREUR, and Gen. Hans Speidel, CG, NATO's Central Europe land forces

Barbed wires goes in to protect a company headquarters after an attack had netted a quick advance

8th Inf. Div. tank overwatches Main River bridge during withdrawal

Feats of Hercules, No. 2



New missile muscle now for NATO bases!

The mighty Lockheed C-130 HERCULES can transport 90% of all types of missiles now operational with, and under development for, the U.S. Armed Forces. The HERCULES will fly missile cargoes non-stop for distances over 3400 nautical miles, at cruise speeds of 305 knots.

The rugged "go anywhere, haul anything" capabilities of America's first prop-jet combat cargo carrier add new strength to NATO supply lines —at a time when these far-flung bases are more vital to the free world than ever before.

In addition to "beefing up" the global mobility of the Armed Forces, the HERCULES is making new friends for the United States by its prodigious feats. Example: a C-130 of the 322nd Air Division, 317th Troop Carrier Wing, Evreux-Fauville Air Base, France, transported a 28,700-pound generator from Laon, France, to where it was badly needed to supply electric power in Adana, Turkey—and flew the 1981 nautical miles non-stop in less than seven hours.

Like all Lockheed designed and built aircraft, the C-130 HERCULES can be counted upon to do its assigned jobs with outstanding ability, no matter how difficult the task. That's why—

Lockheed

means leadership

Lockheed Aircraft Corporation
GEORGIA DIVISION, *Marietta, Georgia*

NCO ranks. At the same time, there were shortages in the combat areas which included about 4,500 combat engineers, 8,000 infantrymen, and 3,500 armor crewmen.

Gyroscope revised. The overseas unit rotation plan started several years ago is being reduced in scope, beginning in December of this year. In announcing the revision, the Army listed these features of the new plan:

(1) Unit rotation will be at battle group level and below between the United States and Europe only.

(2) Infantry divisions will rotate battle groups, field artillery battalions, engineer and tank battalions, and reconnaissance squadrons. All other elements of infantry divisions will be excluded from rotation.

(3) Non-divisional units, for example, separate artillery and engineer battalions which are presently in the Gyroscope program, will generally be continued in the program.

(4) Armored divisions, as well as all other units in Europe which are not included in Gyroscope, will be supported by a system of individual replacements or trained packets.

(5) Replacement of infantry and airborne battle groups will be by a continuous rotational cycle. These units will not always pair with the same unit, and may not always return to the same location in the United States.

(6) Gyroscope volunteer personnel in the armored divisions and other units affected by the withdrawal from Gyroscope program will be offered transfer options to fulfill prior Gyroscope commitments.

First units to be affected are a battle group of the 8th Infantry Division, now in Germany, and a so far unnamed battle group from a division presently stationed in the U. S.

Angels inactivated. The need to maintain balanced forces within imposed strength ceilings is forcing the Army to inactivate one of its three airborne divisions and to make a composite division out of three infantry and two airborne battle groups. The 11th Airborne Division, now in Germany, will be inactivated between now and 1 July and the 24th Infantry Division will be reconstituted and stationed in Germany.

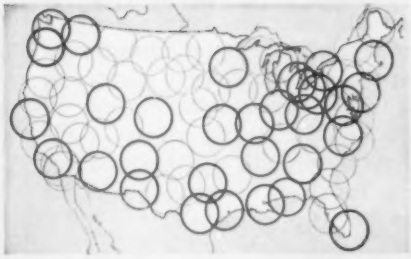
Major units of the reconstituted division will include the 1st Airborne Battle Group, 187th Infantry; 1st Airborne Battle Group, 503d Infantry; 1st Battle Group, 19th Infantry; 1st Battle Group, 21st Infantry; and the 1st Battle Group, 34th Infantry.

Sabre Hawk. VERTICAL ENVELOPMENT OF "ENEMY" FORCES . . . CAMOUFLAGE

Leaping over "enemy" positions in H-34 helicopters, cavalrymen scurry to join their fellows and consolidate their position

Hidden (they hope) from peeping air, a mortar crew gets set to fire

Getting set for jet-age traffic at 27 leading U. S. airports



Raytheon radars at 27 of the 31 heavily circled areas will soon be operating as part of C.A.A.'s flight control network. Light circles indicate future coverage.

"More sky to fly in"—the goal of the Civil Aeronautics Administration—is near realization for both military and civil aircraft. The first of 27 new Raytheon Flight-Tracker radars ordered by C.A.A. is now being installed at Indianapolis. Installations at six other major cities will follow shortly and the nation-wide system will be tied in with Air Defense Command radars to link 31 airports by this fall.

Flight-Tracker radars help safeguard aircraft in every stage of flight. They detect and track planes in any weather—even in storms—pinpoint position of four-engine transports up to 200 miles distant, at altitudes up to 70,000 feet.

This new equipment, designed and built by Raytheon, will speed schedules, reduce airlane congestion. By readying the skyways for the Jet Age, Raytheon helps solve a major military and civilian transportation problem.

RAYTHEON

Excellence in Electronics

RAYTHEON MANUFACTURING COMPANY, WALTHAM, MASS.

EDITORIAL

Four-Division Striking Force

AUSA Objective No. 2: *"A four-division full strength, highly mobile striking force within the strategic reserve of the active Army"*

AUSA's Objective No. 2, quoted above, expresses the idea that in today's divided world national objectives can be furthered only if backed up by plainly visible military power that is prepared to accomplish the tasks that may confront it. The principle expressed in the objective therefore is non-controversial; such differences as may arise derive from specific points enunciated in the objective.

As to size it can be said that four divisions is a moderate force when balanced against the worldwide commitments of the United States (including consideration of other elements of the nation's military strength). While cogent arguments could be assembled demonstrating that four divisions are inadequate, the number does balance with other elements of military strength and is within the capabilities of a million-man army—which is AUSA's Objective No. 1.

What is the present status of the Army's strategic reserve striking force?

A strategic striking force of Army forces does and has existed since the end of the Second World War, except for a period during the Korean war when all extant divisions were stripped of trained men to keep the battle lines manned.

As of today the Army's strategic reserve consists of four divisions. But only one of them is on an alert status and ready to move anywhere on a few hours' notice. The other three are close to full strength but are not prepared for fast movement.

How would these striking force divisions differ from other divisions in the United States?

Like SAC units these divisions should have one mission and one mission only: readiness for combat. In a very real sense they would be resting upon their arms at all times; alert units ready to be committed without delay. This means that they would spend a great deal of time in the field perfecting their combat capabilities. Their ability to respond fast and effectively to orders to move under tactical conditions to any place in the world would be constantly tested.

What has stood and still stands in the way of maintaining such a force?

False economy is certainly involved; when military budgets are tailored to fiscal considerations rather than military requirements, it is easy to make large "savings" by eliminating one or two divisions and by retarding the pace of modernization of weapons and equipment.

Another reason is concentration on the requirements of the "big war" at the expense of doing too little to meet the clearly evident hazards of creeping aggression and limited conflicts.

Complacency has played a part; the creation of an adequate and ready striking force within the Army's strategic reserve is something that can be put off. How much this kind of complacency has cost this nation in lives and treasure in 183 years (Bull Run, Bataan and Korea are three monuments to this complacency) can't be calculated; the tragic part of it is we refuse to learn the lesson and are asking for it again.

In summary, over-reliance on instruments with which to fight the "big war," fiscal solvency at the risk of military disaster, and complacency all play into the hands of the wily masters of the Kremlin. We can be sure that they are assiduous counters of our battalions in being; our visible weaknesses are their cups of caviar.

What needs to be done to get this kind of striking force?

First and foremost a decision for it must be made at the highest levels of the Government.

CONTINUED ON PAGE 58

MISSILE COMPONENTS Bulova safety and arming systems protect ground, air and sea crews from load to launch, then take over in flight. Safety factor of one in a million is specified and reliably delivered by Bulova's precision production facilities. Powder-driven gyros and fuzing systems are among other Bulova developments for 18 key missiles.

AIRCRAFT INSTRUMENTS Bulova's new Servo Altimeter assures maximum reliability through unprecedented sensitivity, accuracy and repeatability. At 40,000 feet, it detects 4-foot changes . . . is correct to 40 feet. Safety is improved in traffic control and flight over difficult terrain. As a control instrument, it is readily adaptable to guided missiles.

Bulova reliability helps to solve today's most challenging problems

For more than 80 years, Bulova has charted new courses in the area of reliability.

Milestones along the way are the electronic and electro-mechanical devices created by the Bulova capability—the uncommon blend of pioneering vision and precision production experience.

These Bulova developments, distinguished by their advanced design and consistent high performance, help our nation's defense and industry stake solid claims on the frontiers of science and space.

The high degree of Bulova reliability prevails from concept to mass production. For assistance with your systems and components problems, write: *Department G.I.S. 3, Bulova Park, Jackson Heights, New York.*

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BULOVA RESEARCH AND DEVELOPMENT LABORATORIES, INC.

INFRA-RED COMPONENTS Bulova infra-red cells are designed to unerringly guide Sidewinders to target. Bulova-improved production processes increase yield and product reliability. Other infra-red developments include filters, reticles and thermistor bolometers, as well as advanced research in mosaic and lead selenide cells.

PHOTOGRAPHIC SYSTEMS Bulova's new high performance 70mm recon-camera features 8 frame/sec. and pulse operation...vibration-free exposures to 1/4000 sec. From the smallest 16mm gun camera ever built to units of 9x18" format size, Bulova developments include optical, data recording and instrumentation, and special sequence cameras.

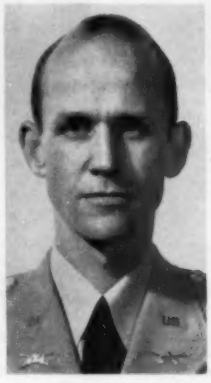
LIEUTENANT COLONELS
GREGG L. McKEE and
ROBERT B. RIGG

Rx GOER for

THE ubiquitous jeep, the 2½-ton truck and the C-47 airplane were the three non-fighting vehicles that made the greatest contribution to the winning of the Second World War. To this trio should be added the bulldozer; not strictly a vehicle to be sure, but without it the three often would have been immobile. (Forget the C-47; helicopters and other VTOL types are going to do things for the field army that the C-47 wasn't designed to do.) You can forget the jeep and 2½-ton truck, too; the problem under consideration here is ground vehicles for a field army that aren't dependent upon a bulldozer for a passable track.

In its study of the problem the U. S. Army Armor Board at Fort Knox, Kentucky, turned to the earth-moving machines of the American construction industry—the agile, wheeled behemoths without which postwar Surburbia wouldn't have bloomed with three-level ranch houses, nor have been tied to their parent cities with an umbilical cord of highways, super and not super enough.

The studies of the Armor Board led to a program that it calls GOER, a coined word meant to identify a family of wheeled vehicles capable of performing adequately on the atomic battlefield.



COLONEL McKEE

Most of the work on GOER has been done by the Armor Board's General Test Section. In its tests and experiments it received assistance and support from the Army Ordnance Corps and the corporations that manufacture the nation's heavy construction machinery.

This article is based on a much longer one by Lieutenant Colonel **Gregg L. McKee** which appeared in the November-December issue of *Armor* magazine. It was rewritten for ARMY at the request of the editors, by Lieutenant Colonel **Robert B. Rigg,** whose name is familiar to the readers of this magazine.

Colonel McKee, presently Chief of the General Test Section of the U. S. Army Armor Board, is a 1941 graduate of the Military Academy. He has attended the Armor School, Command and General Staff College, and took graduate work at Oklahoma A&M College.

As this article makes clear, the GOER program has advanced beyond experiments and tests. What it needs now is hardware. And for that it needs a forceful nod of approval—and, of course, money.

Ground Mobility

THERE is a haunting fear in the minds of some military men today, that our modernization of ground transportation is proceeding at too slow a pace. While progress in atomic firepower and the increase of ranges of missiles are widening the battlefields of the near future, the mobile means and machines that permit an army to move about on the ground are not keeping pace with the new weapons which have so greatly widened the future battlefield. Thus, slow evolution in transportation lies incongruously alongside the rapid revolution in firepower. As a result, there is serious worry over the grim possibility that in the heat of a combat race our military horse could be the first under the wire, but the jockey would have been left behind.

Ground mobility is like the weather. Many people talk about it; too few do anything about it. The demands of future battle zones are exacting but dispersal will be a hollow and meaningless word unless we possess vehicles that are truly mobile and worth their weight in cargo-carrying capacity, maintenance simplicity, and cross-country maneuverability. We cannot rely entirely on helicopters, nor can we wait for future aerial jeeps and cargo carriers.

Plainly, we urgently need more modernized ground transportation. For example, the efficiency of a transportation method is measured in part by the ratio of payload carried to the gross laden weight of the machines. The Army's standard ¼- and ¾-ton, 2½-ton, 5-ton, and 10-ton trucks have off-road payload ratios of 25, 27, 33, and 39 per cent, respectively. This efficiency is low and inadequate to the demands of the future.

Consider the case of a logistical operation based on a force with 2½-ton trucks. This truck has a 27 per cent payload to gross weight ratio. Assume the force in question has a gross weight of 100 tons (27 tons of payload), and that it transports its load 50 miles forward after which, empty, it returns a like distance to the rear.

We see that 100 times 50 equals 5,000 ton-miles of work is necessary for the forward haul, and (100 minus 27) times 50 equals 3,650 ton-miles necessary for the return trip for a total of 8,650 ton-miles. This work must be paid for in fuel, deterioration of equipment, damage to routes, and manpower. When we measure what we have achieved, however, we find that only 27 times 50 equals 1,350 ton-miles of accomplishment has been registered. The ratio of accomplishment to expenditure

Tug of War between conventional and GOER type vehicles. Actual tests have proved that two tires of 63-inch diameter can outpull 10 tires of 42-inch diameter when the loads are identical.

is only 15.6 per cent; this is the measure of our efficiency. Stated another way, at least 84 per cent of our logistical endeavor consists merely in moving the dead weight of the trucks! This efficiency can be greatly improved upon by a system of vehicles called GOER—ultra-mobile military vehicles of the earthmoving type—transporters with payload to gross vehicle weight ratios of 50 to 70 per cent in contrast to the present 2½-ton's 27 per cent.

GOER is a word coined by the U. S. Army Armor Board to identify its concept for a new family of military wheeled vehicles adequate to the demands of the atomic battle zone.

These demands are exacting. Such a vehicle must be able to move significant loads at an acceptable speed with a degree of off-road and off-bridge mobility sufficient to make the large-scale, cross-country, logistical operation feasible. It must do this dependably, with minimum demand for preventive maintenance, and an enduring freedom from breakdown. When breakdown does occur, maintenance must be simple, fast, and easy. All this must be accomplished with a vehicle which will provide economy in total numbers, manpower, fuel, replacement parts, and overseas shipping space and tonnage. The GOER meets these requirements; current standard vehicles do not.

To the optimum feasible extent all GOER vehicles will possess six interrelated features which are:

- Large diameter, low-pressure tires.
- Two-wheeled prime mover with positive powered wagon steer.
- Rear-wheel traction, at least in low and reverse gears.
- Exoskeletal design and inherent floatability in inland waters.
- Simplicity.
- Improved ratios of payload to gross laden weight.

Bigger tires, better traction

All tires encounter rolling resistance. However, as tire diameter increases, rolling resistance decreases rapidly. The traction which a tire can develop is not determined solely by the amount of torque available at the axle. A tire must get a tractive bite on the ground, and the amount of bite which can be obtained on a given soil depends primarily upon the size of the tire, its inflation pressure, and the nature of its tread. As tire size increases, so also does the coefficient of traction. A large number of small tires does not develop as much traction as a smaller number of larger tires. Actual tests have repeatedly shown that two tires of 63-inch diameter will outpull ten tires of 42-inch diameter when total loads on the driving members are identical and even though the many-tired vehicle has the higher horsepower rating.

Furthermore, the larger the tire diameter the greater its ability to roll over obstacles in its path.

To get through mud a vehicle must either possess sufficient flotation to stay on top, or have sufficient under-axle and under-body clearance to permit the tires to penetrate to a depth where they can get adequate traction before the vehicle bellies in. Most Army vehicles do not possess these qualities. As a result, they get stuck.

Since it seems unlikely that efficient cargo-carrying wheeled vehicles can ever be given flotation enough to remain on top of mud, under-axle and under-body clearances become important. Larger tire diameter is a simple way of achieving greater ground clearances. Our present 2½- and 5-ton trucks have less than 12 inches under-axle clearance. A GOER vehicle utilizing tires of 6-foot or greater diameter may be expected to have at least 24 inches of under-axle clearance. Tests of commercial earth-moving equipment embodying certain GOER features have proven the GOER to be an exceptionally capable mud performer.

In final analysis, tire size is the most important single factor in establishing the level of off-road performance which can be attained with a wheeled vehicle. A second great advantage stemming from the use of large tires is mechanical simplicity through elimination of the suspension system and articulation power train.

Positive-powered wagon steering

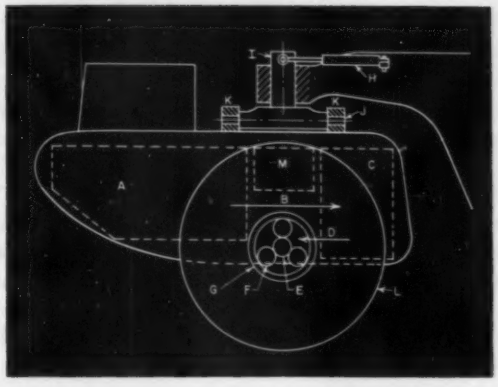
The most significant innovation in the GOER concept is positive-powered wagon steering. The two-wheeled prime mover on which positive-powered wagon steering is used promises to exert far-reaching influence

THIS MAKES IT MOBILE WHEN THE GOING IS ROUGH

Massive, but agile, earth-moving machines are the genesis of the GOER concept. At right is shown a Euclid E-7 turning out of a sunken road. The large tires provide traction, the wagon-steering gives the operator command of his machine under all conditions, body rack is eliminated by the use of horizontal and vertical kingpins. The two-wheeled prime mover-tractor shown in the diagram at right carries the GOER's engine, A; transmission, C; two front wheels, L; steering system, H; and operator. It is fastened to the trailing load carrier through an inverted letter "T" kingpin, I-J. The prime mover holds in bearings, K, the two ends, J, of that part of the kingpin which is horizontal. The neck of the trailing load carrier holds (in bearings) the vertical portion, I, of the kingpin.

When the GOER vehicle is moving forward on level ground the front and rear axles are parellel and horizontal. When one wheel strikes a bump or hits a hole the tractor or the trailing unit is free to tilt approximately 20 to 25 degrees in either direction about the horizontal kingpin, J, so that all four wheels remain on the ground. When a turn is desired by the operator, his steering command causes the hydraulic steering cylinder, H, to apply torque between the neck and the tractor about the vertical kingpin, I, so that the tractor swings either right or left as he desires. The tractor may be swung whether or not power is being transmitted to the wheels and whether or not those wheels have a tractive "bite." Once positioned, the front axle maintains its attitude and the vehicle circles until a contrary steering command is given. This, then, is positive powered wagon steer—wagon steer because the entire axle swings and carries the wheels with it as does the farm wagon. Positive powered because the driver has complete and positive control over axle position anywhere desired within its limits of travel.

The 35-ton payload Euclid TS-18 shown at right demonstrates one method of providing additional power through rear-wheel drive.



A – Engine
B – Drive line—Engine to transmission
C – Transmission
D – Drive line—Transmission to differential (no slip)
E – Differential and axle
F – Planetary final drive
G – Brake
H – Hydraulic steering cylinders
I – Vertical kingpin
J – Horizontal kingpin
K – Bearings
L – Tire
M – Hydraulic pump or electric generator on electrically steered machines

on the design and performance of Army vehicles. Since tires of 6-foot diameter obviously can't be used on a conventional truck, a two-wheeled prime mover with positive-powered wagon steering makes use of tires of this diameter possible within a rational design of useful vehicles of moderate size. It also makes a significant contribution to mobility, agility, reliability, payload ratio, air transportability, simplicity, and ease of maintenance.

The wagon-steered GOER is agile and it has an astonishingly short turning radius. Without stopping and backing, the GOER can make a nonstop **U** turn on a road less wide than the vehicle is long. In reverse, it steers as easily as in forward movement and it is easy to position the trailing load carrier.

The full mobility of standard trucks can be realized only when all wheels drive. It is not a simple mechanical problem to power wheels which also pivot in steering. To lessen shock on steering system, operator, and drive line, it has been found necessary to use expensive, failure-prone, constant-velocity joints and these must be located at a point on the vehicle which is extremely vulnerable to damage. The steering linkages must also be located in vulnerable areas. For handling and tire wear, proper steering geometry must be maintained. None of these problems exist in the GOER.

The front and rear axles of the GOER are free to tilt, each with respect to the other. The result of this freedom to tilt is that no rack, no twisting of the frame, can be developed in the two body sections. This permits the framework to be more lightly constructed and the weight saved can be carried as payload.

Positive-powered wagon steering offers a unique advantage for air transportability because the GOER can be separated at the kingpin into two loads of equal weight. Since the GOER will be designed for a 50 per cent ratio of payload, the GOER will weigh 15 tons. When disassembled each of the two units will weigh about 7.5 tons.

The mobility advantage derived from positive-powered wagon steering is most apparent in mud. The driver can duck-waddle or elbow his way through mud of a surprising depth.

Finally, tests of all these different types of commercial earth-moving vehicles during formulation of the GOER concept have clearly shown the mobility superiority of the two-wheeled tractor with positive-powered wagon steering.

Rear-wheel traction

Most earth-mover vehicles have only two-wheel (front) traction, but rear-wheel drive is essential for the GOER, which must climb steep grades and have utmost "mud-ability."

In one method rear-wheel drive is provided by mounting a second engine and automatic transmission between the rear wheels. Both are pneumatically controlled from the driver's position. Another type has electric traction assist which can be set in automatically in low gear. This machine already incorporates a high generator in the prime mover to provide electric power to its steering system and winches. The Le Tourneau-Westinghouse Model C Loggin Deck is a machine of this type. The electrical generator of the prime mover can provide considerable power for a host of ancillary applications such as machine shops, arc welding, pumps, compressors, winches, lights and heat.

Exoskeletal design

The exoskeletal type of body construction used in the GOER is in the pattern of naval and aircraft design. Exoskeletal tanker-semitrailers, having no frame structure, are growing in popularity. More strength, less dead weight, heavier payloads, and lower cost are the reasons for its civilian popularity. The GOER will reap these same benefits and in addition will gain an inherent capability for flotation on water. This will permit crossing most inland water obstacles without bridging and facilitate direct, rapid unloading of water-based transport aircraft.

In the GOER, frame and body are one, and the exoskeletal design eliminates the need for waterproofed engines and accessories. Furthermore, the exoskeletal design of the GOER permits it to be used for workshops, CPs, communications centers and similar facilities.

Simplicity

The very key to increased reliability and durability lies in mechanical simplicity. The GOER is patterned closely after the simple, robust, enduring equipment so widely used by the American construction industry—equipment is designed to give 10,000 hours (approximately 100,000 miles) of economical service under "tote road" and cross-country conditions.

The GOER tractor is an extremely versatile machine which can serve as prime mover for a limitless variety of trailing units. The commercial two-wheeled prime mover pulls scrapers, dumpers, tankers, rollers, cement mixers, flat beds, cranes, and the like. The Army can take advantage of the GOER's flexibility, and thus minimize the variety of spare parts and greatly simplify training and maintenance.

The changing and repair of a GOER tire will be more difficult and time-consuming than with our current vehicles. However, the necessity for doing so will be far less frequent because the GOER tire is virtually invulnerable to C-ration cans and spent shell fragments, the two major causes of tire failure in World War II. Furthermore, the GOER tire will not require chains.

Simplicity produces economy in initial cost and in operation. Its less frequent breakdown and faster maintenance give higher availability which justifies fewer maintenance facilities and less standby equipment. The GOER pays a price for its simplicity, however. Tests have

SUSPENSION SYSTEMS

These photos show how much simpler the suspension system of Goer type vehicles is than that of conventional trucks.

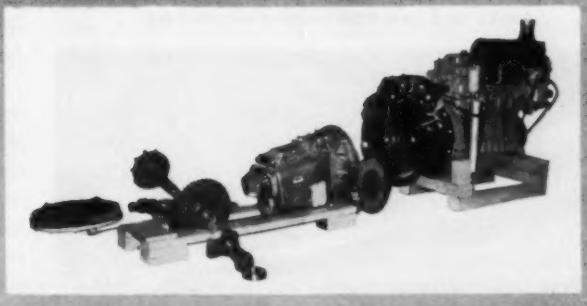
2½-TON TRUCK

10-TON "D" TOURNAPULL

POWER TRAIN SYSTEMS

The Goer type power train is much simpler than that of conventional trucks. Furthermore it gives increased efficiency, is more durable, and is easier to service and maintain.

2½-TON TRUCK



10-TON "D" TOURNAPULL

established the usable top speed of such a vehicle at about 30 miles per hour. However, the GOER will increase speeds in off-road operations.

Advantages in airhead operations

Today's earth-moving equipment has off-road, payload-to-gross-vehicle-weight ratios of from 50 to 70 per cent. GOER has an off-road payload of about 50 per cent, plus high off-road and off-bridge mobility. This ratio is extremely important in determining the efficiency of a transport system and has far greater significance than the usually employed ratio of payload to curb weight.

However, operational efficiency is not the only benefit accruing from an improvement in the payload ratio. Today there is great emphasis on air transportability. Once a vehicle is light enough to be air transported consideration must next be given to the payload. The number of cargo vehicles to be airlifted will depend on the size of the mission they will be assigned in the airhead, as measured in ton-miles, and upon their operational efficiency. Thus, if two types of vehicles having

BATTLEFIELD TYPE—light, air-liftable, low silhouette

TANKER—5,000 gallon capacity for rapid refueling of tanks and armored personnel carriers

SOLDIER-ARTIST VISUALIZES MILITARY APPLICATION OF THE GOER CONCEPT

Lieutenant Colonel Robert B. Rigg, who rewrote this article for *Army*, contributed these three sketches of GOER military vehicles.

FREIGHTER—logistical work horse capable of carrying up to 10 tons of ammunition, rations

the same curb weight are available for selection, one type having a 27 per cent ratio of payload and the other a 50 per cent ratio, only 54 per cent (27/50) as many of the more efficient vehicles need be airlifted. Consequently, the lesser number of vehicles will require fewer operators, less maintenance support, and less fuel. The aircraft thus saved can then be used to mount a larger-scale operation or to permit a faster build-up of force in the airhead.

This aspect of the air transportability problem has not received sufficient attention because of blind devotion to the alleged advantages of light curb weight. Light curb weight, without an accompanying favorable payload ratio, is not all advantage when such an operation is viewed in its entirety. The goal must be to deliver efficient capability to the airhead, not impressive quantities of inefficient equipment and large numbers of personnel, rendered unproductive for lack of an adequate tool.

The necessity for logistical vehicles of increased carrying capacity is clearly evident. We cannot continue to haul gasoline in thimbles when one armored division may burn up 400,000 gallons per day. This quantity of fuel can be moved in 48 GOER tankers of 26-ton capacity or 80 15-ton GOERS. Furthermore, these tankers can go almost anywhere tanks can, and float across rivers besides.

We have made tremendous strides in increasing firepower. We cannot increase logistical power the same way. Until this has been accomplished, the sparsely populated battle zone will remain a myth.

The potential of off-road transportation

Road-bound vehicles can neither disperse nor concentrate with the speed and flexibility required in modern war, and dispersion is vital.

The commercial highway truck and truck tractor-semitrailer combinations are not only road-bound, but are becoming more so. On the other hand, the postwar period has seen the phenomenal growth of a true off-road vehicle manufacturing industry. It appears logical that the Army should look to this new industry for the solution to some of its off-road transportation requirements.

Today, the Army in the field uses wheeled vehicles in three primary operational roles: tactical, distribution and logistical. Thus, a requirement exists for three families of vehicles and the GOER concept lists them as follows:

- GOER, battlefield, air-liftable
- GOER, distribution, air-droppable
- GOER, freighter, air-landable.

In ground combat, the battlefield GOER is used for the rapid transport of leaders, weapons, crews, ammunition, and communications equipment. These GOERS permit rapid, effective movement and facilitate the exercise of control, two items vital to battle success. These GOERS are light, small, of low silhouette, highly agile and mobile, capable of being both manhandled and airlifted. Cargo-carrying capacity is subordinated to these requirements.

Distribution GOERS are employed in the forward combat areas, usually not under direct fire, to move supplies. Such vehicles will have high cross-country mobility, ease of handloading and unloading, high ratio of cubage to tonnage capacity, ease and quietness of operation, high durability and reliability and easy maintenance. They are air-droppable.

Freighter GOERS move large quantities of matériel from rear areas, beachheads, and similar places to forward distribution points or rendezvous with distribution GOERS. Distances of haul are relatively great and over poor routes. These vehicles are characterized by high ratios of payload, high payload tonnage ratings, long cruising range and economical requirements for manpower.

The six salient design features, earlier enumerated, can all be attained in good measure in GOERS having payload capacities of 8 to 10 tons and greater.

Consider, for a moment, that the 2½-ton truck is usually overloaded, to four or five tons, at the expense of durability, and that many trucks pull the 1½-ton cargo trailer which also is frequently overloaded. In short, the Army needs a larger truck, of up to 8 tons. This need is recognized by the increasing demand for the 5-ton truck. The distribution GOER is the answer.

In the case of the battlefield class of vehicle, the requirement for low silhouette will limit the size of tire; thus, mobility will suffer. Recent developments in this field, however, have led to a substantially improved ¼-ton truck, the M151. If its design were so modified, the M151 would be a welcome addition to the GOER family.

A GOER in the 10- to 25-ton payload range would be most similar to the current earth-moving machines. As a result, a vehicle of this size appears to be the most logical starting point for development. The 15-ton size has actually been selected as the first GOER to be developed. It will profit from the wealth of design, manufacturing, and operational experience already available in the construction-machinery manufacturing and construction industries. In addition, a GOER of this size can take full advantage of proven, on-the-shelf components so that cost will be low and time for development short. Industry is prepared to deliver initial prototypes within six to eight months after receiving a firm go-ahead order, and at a cost far below that experienced in automotive development.

Two-types of GOER are initially planned; one is a 15-ton ammunition carrier, the other a 5,000-gallon tanker. Design concepts of different manufacturers are illustrated.

Plainly, there needs to be a revolution in Army vehicles, and until there is, "mobility" and "dispersion" will be hollow words in respect to atomic age requirements.

At White Sands Proving Ground, N. M., Master Sergeant Warren Wallis checks flight of new Sergeant SSM

Sergeant in firing position on mobile launcher

ANOTHER ARMY MISSILE

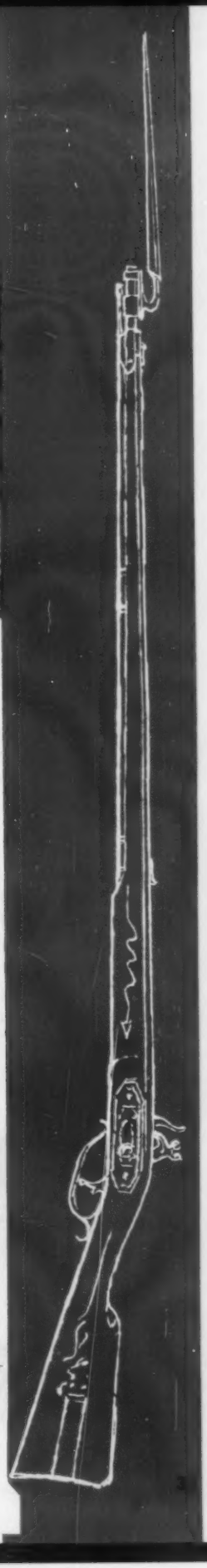
Mobile Sergeant to Succeed Corporal

The Sergeant, the Army's newest ballistic surface-to-surface missile, possesses a high degree of accuracy and reliability which has been demonstrated in flight tests under all operating conditions. It is more powerful and more accurate than the four-year-old Corporal and, when placed in production, will replace the Corporal in the field. A highly mobile weapon, the Sergeant can be emplaced and fired quickly by a very small crew in any weather or terrain conditions. Its solid-propellant rocket motor can hurl it far behind enemy lines to deliver an atomic warhead and its extremely accurate guidance system is invulnerable to any known means of enemy countermeasures.

All the system elements of the thirty-foot Sergeant have been especially designed for portability and mobility and are transportable by standard Army vehicles. The use of solid fuels, plus advanced guidance techniques, minimizes maintenance requirements and simplifies ground handling procedures and equipment.

The Sergeant's engines were used in the Army's Jupiter C to shoot the final stages of the Explorer into orbit.

The Sergeant was designed and developed for the Army by the Jet Propulsion Laboratory of the California Institute of Technology and will be produced by the Sperry Gyroscope Company's Surface Armament Division at Salt Lake City, Utah.



Western Europe's Small Arms

JAC WELLER

WORLD conditions have linked our military destiny with the armies of Western Europe. The U. S. Seventh Army is strong. But in the final analysis the survival of a free Europe may well depend upon how our allies fight, particularly how their infantry fights. Recently, I visited the armies of Britain, France, West Germany, Belgium and Spain, as well as our Seventh Army, to see what infantry weapons were actually in use, and to discuss tactics and training. I was impressed not only by the wide divergence between American and European small arms and tactical thinking, but also by differences among Western Europeans themselves. All certainly have a right to a small-arms opinion.

We must not believe that, since we provide our allies with large quantities of small arms, they will use them as we do. Weapons that are technically small arms in the U. S. Army, such as recoilless rifles, rocket launchers, flame throwers, mortars, and the like, are now used by our allies. Our advice on their proper employment in battle is eagerly sought. However, the armies of Western Europe have their own ideas about machine guns, automatic rifles, rifles, submachine guns, and pistols. American weapons of these types, presently in the hands of European troops, do not receive unconditional praise.

The nations of Western Europe are united in their determination to resist

Communist aggression in NATO's area of interest. Therefore, there are obvious advantages in some standardizations, particularly in small arms. Although never explicitly stated, one gathers that this small-arms standardization was originally directed toward three goals. First, the same rifle and machine-gun cartridge was to be used by all armies. Second, a single weapon was to be designed which would replace all carbines, submachine guns, rifles, and automatic rifles; it would presumably fire the standardized rifle and machine-gun cartridge. Third, weapons parts were to be identical and interchangeable, even though made in different countries. These three aims were, to some extent, interdependent.

The possibility of small-arms standardization in Western Europe was good in the years following the end of World War II. Great Britain, France and Belgium had a variety of rifles firing different non-interchangeable ammunitions. Some of these arms and cartridges were designed during the 1880s. West Germany, when rearming was possible, had no weapons save those given by her allies. Spain, not a member of NATO, had bolt-action Mauser rifles.

The NATO cartridge

Britain was first to accomplish something by producing the EM-2 weapon and the British .280 short rimless cartridge—a courageous effort to achieve the entire NATO ideal. The cartridge was low-powered; the arm itself very short and unorthodox. Some called it a submachine gun, but it could replace the rifle, the submachine gun, and the automatic rifle. Because of the ammunition's low power, it delivered full-automatic burst-fire accurately at ranges up to a thousand yards, even though the weapon weighed only eight pounds.

The EM-2 and its ammunition had the support of the French, but practically no one else. After a long series of tests and meetings, both were finally scrapped. In December 1953 Britain, under specific orders from Winston Churchill, finally chose, along with other Western European armies, to join with the United States in adopting the U. S. T-65 experimental cartridge as the standardized 7.62mm NATO round. This is a full-power rifle cartridge of the same bullet diameter and ballistics as the U. S. .30-06.

All NATO armies achieved a worthwhile goal in standardizing on the NATO round for rifles and machine guns. However, after four years, this goal is still largely on paper. Considerably less than five per cent of the weapons actually in the hands of NATO troops are chambered for it. Apparently, it will be 1960 before the U. S. Army will have in actual service many of our new family of weapons firing the NATO round.

The one-weapon goal

The power of the 7.62mm NATO round defeated the second goal so far as Western European armies are concerned. In their opinion, no arm chambered for a round of this power can possibly replace submachine guns. These weapons are very popular in Europe; their heavy volume of fire, coupled with low recoil, make them really effective for close-range work as World War II and the Spanish civil war demonstrated. They are lighter and handier than rifles, particularly for use in vehicles. The armies of Western Europe are keeping their submachine guns, all of which fire official pistol ammunition.

Some officers in Western European armies also attack the one-weapon idea on the other extreme. They feel that a weapon in the infantry rifle weight class cannot perform as well as a heavier automatic rifle like the BAR or the Bren, particularly when firing the powerful NATO round. There seems less logical justification for this point of view. The U. S. M15 (the heavy-barreled, bipod-mounted M14) is 6.7 pounds lighter than our latest model BAR and gives equal, if not superior, service.

Even though the one-weapon idea is rejected, there are some theoretical advantages, for instance, in having all NATO armies use the same model of infantry

U. S. M1, caliber .30

German Mauser M1898/M37, 7.92mm.

rifle. Some progress has been made along this line, more or less by accident. Many armies are partially equipped with U. S. small arms. As will be noted, the new FN rifle is now issued in at least six armies.

However, with the passage of time, this adoption of international models is not likely to get much greater, nor would it be particularly desirable. The FN rifle is better adapted to European manufacture than our M14 would be. In America, the opposite is true. Real interchangeability of parts is far rarer than most people realize; an individual arm made in Spain and one made in Norway would not interchange parts even though theoretically they are the same model.

Jac Weller, of Princeton, N. J., a firearms consultant and Honorary Curator of the West Point Museum, has written many articles on weapons history and firearms in general, as well as a book on firearms identification. Several organizations have used his services to identify and comment on historical ordnance. This article resulted from his observations during a tour of Europe in the summer of 1957.

Because of variations in tactics, geography, and organization, some Western European armies have requirements quite dissimilar from others. For instance, the West Germans would like a truly light infantry rifle, weighing between six and seven pounds. A weapon of this weight can be made to handle the NATO round satisfactorily. Many sporting weapons are even lighter and fire more powerful cartridges. Toward the end of World War II, the British had two standardized carbines weighing seven pounds or less which were chambered for their equally powerful .303 rimmed cartridge. There are several disadvantages in a rifle of this weight. It is too light for accurate full-automatic fire, and on the target range will not perform as well as a heavier rifle. It probably won't fire rifle grenades. This last requirement is important in most Western European armies and puts a greater strain on a rifle than ordinary bullet-firing.

There are other specialized requirements within one or two nations that wouldn't do at all for others. Matters of length, shape of stock, availability of full-automatic fire, and even appearance are viewed differently in the several armies. However, close liaison among various armies of Western Europe will undoubtedly limit the number of models to no more than three or four of each type, all roughly of the same efficiency. No nation, knowing fully the worth of the weapons of other armies, will deliberately restrict itself by choosing an inferior arm, not even for reasons of national pride.

The mass attack

No single feature of World War II has so greatly affected thinking about weapons and tactics as the ponderous mass attacks over a considerable width by the Russians against the Germans. These mass attacks were grossly inefficient, if local objectives only were considered. However, over great distances and when planned in accordance with the clever over-all strategy of the Soviet general staff, two or more break-throughs often cut off and eventually forced the surrender of a far larger group of Germans located between penetrations. When the total casualties on both sides, including the encircled Germans, were considered, the results of these mass attacks were often impressive. The U. S. forces in Korea were subjected to about the same Communist tactics; the Chinese and North Koreans gave extreme trouble, but were never so successful.

Most European officers agree that cohesive, effective firepower is probably the answer to these mass attacks. However, the meaning of firepower when applied to infantry weapons is subject to two interpretations. Should the bullets be fairly precisely aimed, or just

U. S. M15, 7.62mm.

French M1949
MAS semiautomatic

sprayed? The West German Army wants even the infantryman's rifle to fire as fast as possible, even though light in weight. This means sprayed bullets. Fire which goes mainly over the heads of an attacking enemy may not be the best means of stopping one of these attacks. Other armies prefer, in theory at least, directed fire by infantry teams. A medium-weight automatic rifle with bipod and hinged shoulder support can deliver precise full-automatic burst-fire. A standard infantry rifle is best used semiautomatic only. Submachine guns are desirable, but the real infantry stopper is the machine gun. Because of its weight and mount its stability allows precise fire in accordance with the gunner's desires.

Spanish CETME automatic, 7.62mm.

Crew-served versus individual weapons

Effective, well-trained infantry concentrates its small-arms fire on where it will do the most good, even though relatively few shots are actually aimed at human targets. Experienced Western European infantry officers are almost unanimous in their estimate of the importance of this practice. The soldier aims his weapon carefully at movement, dust from muzzle blast, field fortifications, or merely likely sites and natural lines of communication. He must be actively firing, however, and not cowering in a secure place with an unfiring arm, or merely letting off his weapon blindly.

This type of aimed fire is effective; while delivering it a soldier will have an occasional human target. If it is not delivered at all, defeat is almost sure to result. For this, Western European armies have come to depend more on crew-served automatic weapons than individual rifles, even though both fire the same bullet with equal velocity and possibilities for battle accuracy.

The importance of the machine gun varies in different armies; however, automatic weapons are always more important to infantry firepower than their numbers would suggest. Because of its stability, a machine gun can fire long bursts and still deliver bullets accurately. It has also the psychological advantage of being crew-served. The Germans, particularly, found that crew-served machine guns went into action sooner and remained in action longer and more effectively than the same weapon with a different mount in the hands of one man. A team tends to function with a collective bravery greater than that of a single man. A crew-served weapon seldom fails to fire because of a soldier's fear of exposing himself while aiming, for a team is ashamed to keep its weapon silent merely to avoid bringing down on it a concentrated local enemy fire. A two-man automatic rifle crew will be more effective than one man handling the weapon, even though the one soldier has plenty of ammunition.

Sniping

Each Western European army feels that its marksmen are the best in the world, and has stories about marksmen who can hit a target "no bigger than an orange at four hundred yards." Such battlefield shooting is, of course, exaggerated. The problems of sniping are the same in all armies. Almost any combination of modern service cartridge and rifle can be made to deliver accurate fire at known ranges on easily discernible targets. However, combat conditions introduce complications. Personal skills, extensive training, and special equipment are what make an effective sniper. There are serious doubts that such an expenditure of time, money, and effort is sufficiently rewarded.

Most West European nations either have now, or have had in the recent past, special rifles for snipers. The German World War I sniper's rifle is well known, as is the World War II British No. 4 equipped with telescopic sight. I saw a French 8mm Lebel with special heavy barrel which was used briefly in World War II. During the Spanish civil war, a few soldiers were

German MG 42 machine gun, 7.92mm.

British Bren AR (or very light MG), caliber .303

Belgian FN rifle, 7.62mm.

equipped with foreign target rifles for sniping. Belgian snipers today have FN rifles selected for individual accuracy and equipped with telescopic sights.

There are directives for training snipers and in some cases elaborate courses. However, this whole special training idea has its opponents. Why take the best men out of their teams and expose them to all kinds of additional hazards when human targets are so few? Every nation feels that it is trying to get accurate fire from its soldiers; however, this special formalized sniper training, where it does exist, will probably be curtailed in the event of war.

At present small arms, from pistols to machine guns, vary greatly in the armies of Western Europe. Further, tactics governing the employment of weapons in battle differ in every army. Let's discuss briefly these arms and the way they are used in the five Western European armies I visited.

Britain

British infantry has made more progress toward modern and uniform weapons than any other Western European nation.

After the EM-2 "rifle" and .280 short cartridge debacle, Britain in 1954 actually began to receive both British-made and Belgian-made FN rifles chambered for the NATO round. These are now the only rifles in some British infantry divisions. Further, many Bren guns and Vickers medium and heavy machine guns have been changed to fire the NATO round. Although the new system is not yet perfect, the intention is to eliminate all rifles and machine guns firing the British .303 rimmed, the U. S. .30-06 and the German 7.92mm cartridges. Not all active and reserve divisions will be rearmed for several years. However, this rifle-cartridge program has well started and is being systematically carried out.

Submachine guns (called "carbines" in the British service) for years have been chambered for the 9mm Luger cartridge. Britain has abandoned her .380 and .455 revolvers firing rimmed cartridges and has adopted a Canadian-made Model 1935 Browning semiautomatic pistol that fires the submachine-gun cartridge. In the British service revolvers were in such limited issue that the change was relatively minor.

The British seven-man squad has a Bren gun, five FN rifles all firing semiautomatic fire only, and a Sten carbine. The 23-pound Bren is the basic weapon; it's even better chambered for the NATO round than for the British .303. In a sense, the whole squad is the Bren-gun crew; the gun must stay in action to preserve the squad's fighting effectiveness.

British tactics call for a closer organizational relationship between artillery and infantry at the battalion level than in any other army. However, less reliance is placed on infantry heavy weapons, save the Vickers medium machine gun and the unique PIAT (Projector, Infantry, Anti-Tank), a rocket launcher which also has mortar functions, than in the U. S. Army. Oversimplified, the idea seems to be to neutralize enemy heavy weapons and let the simple, versatile, and extremely capable infantry squads beat the opposition at fairly close quarters. British small-arms training is carefully designed and carried out with this aim in mind. Each soldier fires a complete course at least once a year; his pay depends in part upon his annual score.

France

The confusion surrounding small arms in the French Army was worse in 1945 than in the British. Unfortunately, they have been able to do little constructively. A recent Bastille Day parade of about 12,000 troops carried small arms requiring ten different ammunitions, including three French unique types, three U. S. and three German. A few weapons were chambered for the NATO round. France has an efficient new family of small arms designed by French ordnance since World War II, but the quantities are inadequate.

Several solutions have been proposed; all require money, industrial capacity, and time. It's easy for the French to say, "We will rearm with new, modern small arms all chambered for the NATO round or the 9mm Luger cartridge," but their chances of accomplishing this within the immediate future are not good. The French Army will probably be using several ammunitions and a variety of weapons even after 1965.

In direct contrast to the varied and in part obsolete small arms, the French use their weapons very well indeed. Two LeClerc championships in a row against the very best teams that the United States and six Western European nations could select and train is proof of French shooting ability. These matches are fired under rules which approximate battle conditions

British Sten gun, caliber .303

British submachine gun, caliber .280

as closely as possible. The victory in 1957 was clinched by the French automatic-rifle teams using U. S. BARs in a driving rain. Uniformity and even mechanical excellence of small arms does not necessarily mean superior infantry. What counts is the way the weapons are used.

Spanish Parinco III, machine pistol, 7.62mm.

The modern French Army stresses unit fire with all weapons, from machine guns to pistols and even grenades. In basic training the recruit hears: "Only an automatic rifle can stop an enemy attack or put an enemy automatic weapon out of action; such fire is imperative to the proper fighting of a platoon." Automatic rifles are two-man-team weapons in the French Army. However, other arms also are important; French infantry firepower comes from all its weapons.

French infantry has been on active duty almost continuously for years in either Indochina or Algeria. They have the advantages of battle experience and a testing ground for new tactical theories. Today, every recruit is first completely trained as an infantryman and then specialized in other branches. Infantry units are supposed to participate at least annually in live-firing exercises where entire companies fire all their weapons competitively for the divisional championship. No Western European nation spends so much time at small-unit maneuvers in non-reservational terrain, both in France and North Africa. These battalions and companies rely not only on rifles, automatic rifles, and machine guns, but on the whole gambit of U. S. infantry heavy weapons and motorized transport.

West Germany

Germany lost all her World War II weapons and all capacity to produce them. In rearming, West Germany had the unique advantage of having nothing obsolete; weapons, when finally chosen, will all be the best and most modern. Initially, the West Germans were given arms by both the United States and Britain; others were bought from Spain, Belgium, Switzerland, and Italy. These were accepted as temporary models only, unless officially adopted by the new ordnance department.

West Germany will use the NATO round for rifles and machine guns and the 9mm Luger cartridge for pistols and submachine guns. As already mentioned, she has chosen the FN infantry rifle, and is buying back from the French the German-designed and German-made MG-42 machine guns taken by France and placed in storage in 1945. Since these are chambered for the 7.92 Mauser cartridge, a new model firing the NATO round may be expected shortly. There will probably be no separate automatic rifle, since the MG-42 type machine gun weighs only about 25 pounds when equipped with bipod only. There certainly will be a submachine gun, but none has been chosen; the Spanish Parinco III, weighing less than six pounds, may be selected. The Germans appear to have adopted the Swiss Neuhausen version of the FN Browning 1935 semiautomatic pistol. All these weapons or others which may take their places, eventually will be made in West Germany.

German infantry has fought two wars mainly with machine guns, which they regard as the principal weapons of defense. Offensive tactics call for armor, aircraft, and artillery to blast holes and penetrate. The infantry, although always well up and ready for close fighting, is to consolidate and hold rather than to take positions. This is an oversimplification, but it explains German small-arms thinking. Individual rifles, submachine guns, and pistols are to a certain extent auxiliary to the all-powerful machine guns. German machine-gun crews are very good indeed.

The stream of bullets from the MG-42 is fairly efficient, even though this machine gun has the highest cyclic rate in the world. It fires 1,200 rounds per minute and even faster with some ammunitions. However, full-automatic fire from the FN infantry rifle, always possible with the German model, seems almost useless. Only the first bullet can be effective; the rest go over the head of the man fired at or even an area where the enemy might be concealed. Submachine-gun fire of the same type is more efficient since that weapon is generally employed only at fairly close range; the weaker ammunition means less difficulty in controlling the recoil.

An anomalous condition exists in the West German Army. In some units there is a strong *jäger,* or hunter, influence. German *jägers* were the first riflemen in the British and other European armies. In civilian life they take great pride in placing *one* bullet precisely on game, or even on a poacher. Where a number of *jägers* are officers or noncommissioned officers in an infantry unit, they will often produce more accurate individual rifle fire than is usual. The practice ammunition allowance for rifles is, however, ridiculously low, usually twenty rounds or less per recruit.

Belgium

In 1945, the Belgian Army depended upon Britain and the United States for small arms. The Germans left virtually no weapons in the territory they abandoned. The Belgian Army today still has foreign small arms in considerable quantities, even though their ca-

pacity to produce their own is great. They have presently their FN rifles and new Belgian-made BARs, both firing the NATO round; the latter are similar to, but not interchangeable with, our BARs.

Belgium is closer to having all modern small arms than any other Western European army, save perhaps Britain. However, there is one strange discordant fact: they are presently rebarreling and changing their British Bren guns and Vickers machine guns, normally using British .303 rimmed ammunition, to fire the U. S. .30-06 cartridge and not the NATO round. They do this not because the .30-06 is superior, but because for some time many Belgian infantry units will be using our M1 rifle and the postwar Belgian semiautomatic (not the newer FN) rifles which both require .30-06 ammunition.

Top: Canadian-made version of Belgian M35 Browning; *bottom:* Swiss Neuhausen M35 Browning

Belgium has a selective service system not unlike our own. Recruits get excellent small-arms training, but because of the dense population most big-bore firing is done below ground. A squad consists of eight men armed with one 2.5-inch rocket launcher and seven FN rifles, in units presently equipped with the new rifles. Five of these rifles are not fitted with a full-automatic position on the selector switch, but the squad leader and his assistant have FNs capable of full-automatic fire.

An infantry section consists of three rifle squads and one heavy-weapons squad of three two-man BAR teams and one two-man 3.5-inch rocket-launcher team. The extra men on these teams and the supernumerary noncommissioned officers have Vigneron submachine guns. The sniper in each squad is chosen for his marksmanship and given some special training. All men have extremely broad training as soldiers according to manuals: night firing both with and without illumination, street fighting, house-to-house fighting, special rifle-grenade work, stream crossing, firing from trees, and the like. Can the normal recruit learn all this?

The Belgian Army is good, and its weapons are very good. Both for excellence of design and efficient quantity production, Belgian industry is second to none in Europe. However, the country is small; confidence in themselves cannot but have been badly hurt by total occupation during both World Wars.

Spain

During the civil war in Spain, both sides used small arms from all over the world, and the maintenance and ammunition supply problems were extreme. However, the Nationalists, after their hard-earned victory, ruthlessly scrapped or put into museums all infantry weapons save those which fired the German 7.92 Mauser or 9mm Luger cartridges. Actually, the German bolt-action Mauser rifle, the model 1898 Short, became the only infantry rifle; those presently in use, however, are almost all Spanish-made. At first, Spanish submachine guns were copies of the wooden-stock German Bergmanns and Schmeissers; the newer models are definitely their own, and very good indeed.

Spanish machine guns are similar to the German MG-34 and MG-42 series and are chambered for the 7.92 Mauser cartridge. The Spanish Army has a very good new automatic rifle called the Cetme. It is chambered for the NATO round and is quite light. It resembles the German MP-44, but is definitely a new design; a bipod is incorporated in the fore stock. It fires semiautomatic from a closed bolt, but full automatic with an open bolt for cooling and to avoid "cook-offs." Currently, there are not enough of these to be issued for operational use.

Spanish infantry is unlikely to fight outside Spain and adjacent North Africa. The terrain in both places greatly handicaps aircraft, armor, and to some extent even heavy artillery. Infantry will be more important in the Spanish mountains than, for instance, in the plains of Northern France.

A start toward simplicity

The armies of Western Europe have made a start toward simple modern infantry weapons that fire uniform ammunition. However, it will be some time before all obsolete and non-standard small arms are eliminated, particularly in some armies. International patterns of small arms never will be standardized. However, the exchanges of weapons, data, and ideas within the armies of Western Europe have insured that models placed in the hands of the troops will be similarly efficient. Apparently, no one weapon will replace the submachine gun, the rifle, and the automatic rifle in any army.

The various Western European armies will employ their infantry arms along radically different lines; one will emphasize this and another that. However, each now bases its tactical decisions on sound thinking, individual experience, terrain and people, and even atomic potentialities. We should not take their findings lightly, even though they differ from ours.

These nations don't want war of any type, much less atomic war. But they don't want communism or Russian domination either. Most of them will fight to defend their homelands against something they hate. Communist bestiality in Germany in 1945 and in Spain during its civil war are more than just atrocity stories to Western Europeans, and they will give a good account of themselves, each in his own way. These countries are collectively far better prepared, particularly their infantry, than most Americans realize.

Don't 'Bu

Master Spec

IF you are one of those unthinking American soldiers who dodge the Retreat ceremony, I wish you could meet and listen to Master Sergeant Alfred Ramel, a Philippines-reared U. S. soldier, who was a patient with me in an Army hospital in France in 1955.

One day while looking out of the window of the hospital we saw two American soldiers dash inside a building as the Retreat gun sounded. Ramel spat disgustedly. Those were not real soldiers, he said, or they would not bug out on their country's flag. I admit I was a little surprised; ducking the Retreat ceremony is a popular sport and I have seen officers and decorated noncommissioned officers do it, as well as young privates.

Then Sergeant Ramel told me why he felt the way he did.

He told me how as a fourteen-year-old boy in the Philippines early in World War II he had been horrified when the arrogant Japanese marched into his village and tore the United States flag from its mast in an honored place in the village; of how the Japanese had stomped on the flag and spit on it and trampled it into the ground. He had cried as he had never cried before to see this happen to the sacred symbol of what he, though only a lad, was convinced was the greatest country in the world because freedom and liberty were its watchwords.

All through the long years of the Japanese occupation the degradation of that moment lived with him. And though he could do little to hasten the day of liberation he was proud of the few brave men and women of his village who, at the risk of their lives, had aided the resistance forces.

AFTER the war Ramel joined the U. S. Army. And nothing meant more to him than the sight of the flag waving proudly over the garrison. He would go out of his way, he told me, to be near the flagpole at Retreat so he could salute Old

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g Out' on the Flag

t HERBERT R. REIMERS as told to JAMES C. V. D. BROWN

Glory as it came down from on high. And he was even prouder when he participated in the Retreat ceremony and helped lower and fold the flag.

He told me how after he had become a sergeant he had chewed out his men because they would disappear like cockroaches behind a kitchen sink when the time came for Retreat. His protests had little effect until one day, overwhelmed by the shame of it, he had told his squad, in a voice that cracked with emotion, of his remembrance of a time when he had seen the flag degraded and what that experience had meant to him; of how the American flag was to him a symbol of things a man feels deeply within himself but cannot express without tears coming to his eyes and his voice breaking. Such was conduct unbecoming a soldier and therefore would they please always remember that the things a soldier cannot say he can display by paying proper respect to the flag as regulations require.

After that, Sergeant Ramel told me, his men didn't duck Retreat. When I left the hospital and went back to duty Sergeant Ramel's story went with me. Whenever I saw a fellow soldier ducking Retreat I thought of it. And I am repeating it here in the hopes that I can tell it in such a way that it will have the same effect on you that it had on the men of Sergeant Ramel's outfit.

IS it such a chore, such a terrible task, to render a few minutes of silent respect to our country's flag and the National Anthem that we must dash for cover when the gun sounds? I have seen and I am sure that you have seen drivers of cars loaded with officers, enlisted men, wives and children, and civilian employees driving madly to get out of the area even after the gun has sounded and the music is playing and the flag is coming down.

You say that you know you shouldn't do it, but that it is a game everyone plays and if you didn't play it you're afraid you would look conspicuous and be kidded about being patriotic? Sergeant Ramel would say, what the hell kind of American are you, anyway? We Americans have something to be patriotic about, which is more than eighty-five per cent of the rest of the people of the world have.

You say you didn't think of the flag, you were in a hurry to get home to the wife, the television, the steak or the beer. You probably get real hot under the collar when you see pictures of foreigners smashing up a United States Embassy and tearing down and ripping and burning the United States flag. But to those who did it, it was just a banner belonging to a country they were told to hate.

How much better, then, are we soldiers of all ranks and grades who refuse to pay proper respect to our own emblem of liberty?

I think it is time for all of us—soldiers and civilians alike—to go back to the old way of "wearing our faith on our sleeves." We've got a fine country, and there is nothing corny about showing that we think so.

If Washington's men had all bugged out on the trip across the icy Delaware we would not have this flag. It took a lot to be patriotic then. There were plenty of smart boys who stayed at home, did pretty well for themselves, and called the soldiers suckers. Those were the times that "tried men's souls," and the "summer soldiers" ducked out. Are we summer soldiers?

All our wars record the deeds of men who were patriotic the hard way, like Major General William F. Dean and the thousands of others who refused to take the easy way out and play the Reds' game to better their lot as POWs in Korea and China.

It seems a little thing to suggest that we who serve in peacetime should show our patriotism proudly. But it may be that we do not value our freedom because we have never lost it as Sergeant Ramel lost his in 1942.

I am disturbed that so many fine traditions are going by the board these days. The Retreat ceremony and respect for the flag are things which we should preserve and protect. But neglect and indifference can destroy even what is in regulations. Our neglect and our indifference.

So stop that car. Get out and salute. Don't dodge for cover when the bugle blows. Don't bug out on your country's flag. Stand out proudly under a free sky and salute your flag, honor its broad stripes and bright stars, the stars of a constellation of freedom.

NEW TACTICAL TASKS FOR ARTILLERY AUTOM

ANTIAIRCRAFT ATIC WEAPONS

Lieutenant Colonel John B. B. Trussell

MUCH has been said for the two Nikes and Hawk, our antiaircraft missiles. Though a lot has been justifiably claimed for their brave new capabilities, missiles so far do not enjoy a complete monopoly in the antiaircraft field. Probably they will in time, but right now AAA units of the field army are equipped with gun-type weapons. Some are new since World War II, others have been significantly improved, but none can match the missile. Nevertheless, these are the tools with which we must work.

I do not imply that our light AAA weapons are not good. On the contrary, they have great value if correctly used. The trouble lies in the fact that while we must be ready to cope with modern aircraft, we are trying in some respects to do so with what, for all practical purposes, are 1945 tactics.

In essence, the tactical problem for the 90mm and 120mm weapons (the AA artilleryman calls them "guns") has not changed. Within their range and ceiling capabilities, they can compete with modern aircraft. But our automatic weapons—the tank-mounted twin 40mm gun (M42) and the halftrack-mounted quad .50 machine gun (M16)—present a somewhat different picture.

In the interests of brevity I shall confine myself to the M42. Except for a greater volume of fire, the M16's capabilities are at best no greater than those of the M42, and in many respects less. Generally the same limitations apply as much to the M16 as to the M42.

The M42's traverse rate is great enough to handle any plane flying slowly enough to strafe effectively. There is room for more pessimism, however, about successfully engaging a plane employing the low-altitude bombing system (LABS) which for one thing does not have to slow down like the strafing plane. For another, in some approaches it releases its bomb before coming into range of defending weapons. Furthermore, since it may easily deliver an atomic bomb, it constitutes a much greater threat than strafing to what we endeavor to defend.

The problem of defending against any form of low-altitude air attack is brought into sharper perspective by the fact that while the 40mm's tracer-burnout range is 6,200 yards, its "deterrent" range (with accuracy limited) is only from 3,500 to 5,500 yards, and its effective range for dependably accurate fire is no more than 1,800.

Based on the last figure, if a plane at a slow 350 miles an hour makes a straight-line pass directly over our weapon so that it spends the maximum time in our field of fire, it will be in range for about twenty-one seconds. But such a pass at 700 mph, allows us only *ten* seconds.

In setting up a light antiaircraft defense we deploy our automatic weapons in depth, so to speak, so that an attacker must run a gantlet of fire from a succession of weapons. Even so, over terrain in any way rugged, a pilot can use hills and valleys to obtain a considerable advantage in surprise.

The overall result is that while we are by no means helpless, our capability is rather seriously limited.

Perhaps the complete answer will be found in Hawk, but that missile is not yet in the hands of troops. Meantime, it might well be argued that in using the M42 to defend against low-altitude bombers we are sending a boy to do a man's job.

Does this mean that we should abandon light antiaircraft artillery? Shall we discard the idea of providing AA protection to forward elements of the field army until Nike and Hawk become available? I do not think we can reasonably expect that in another war we shall enjoy the virtual air supremacy we had in Korea, and in Europe near the end of World War II. At the same time, I do not think that light AAA, or any other element, should be saddled with a responsibility which at best seems to be barely within its capabilities. Instead, automatic weapons (which at least have the virtue of being with us now) should be assigned missions both useful and of which they are capable.

Target-seeking aircraft

I do not suggest that just because automatic-weapons units are at hand, justification should be sought merely to perpetuate them. But I think existing AA automatic weapons have a vitally important job, well within their capabilities, which though crying to be done is apparently being generally ignored: denying the enemy

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the use of liaison-type aircraft anywhere within range of our lines. The objection may be offered that such a mission is hardly worth a major expenditure of effort. However, that argument overlooks a significant point: the role of enemy observation planes in using tactical atomic weapons against our forward positions.

Certainly, to hit a target of opportunity you must have a target. The problem is not new, and aerial reconnaissance has long been a significant factor in such fires. However, now that we face the possibility of tactical atomic strikes against targets of opportunity, the significance of such reconnaissance has increased both for the enemy and for us.

The enemy must rely on visual rather than photo reconnaissance, because with targets as mobile as, say, an infantry battle group, and atomic ammunition being expensive, he must acquire extremely accurate up-to-the-minute information. Consequently, he cannot afford the time required to process and interpret aerial photos.

We can no longer sit back in tranquility and tolerate virtually uncontested light-aircraft observation, on the tacit understanding that if we don't bother the enemy's planes he will leave ours alone. To survive on the atomic battlefield we must use every available means to prevent the enemy from obtaining useful target information.

Granted that liaison planes do not as a rule penetrate deeply into hostile territory; when on observation missions, they may fly along the friendly side of the line of contact. On such a course they would be well out of range of any weapons which a commander insists on siting to perform Leavenworth's stock AA mission: "Protect Div Arty and Div Res in priority."

However, the destruction of enemy light observation planes cannot very well be left to tactical air support. For one thing, it is unrealistic to expect that enough tactical aircraft will be available at where they would be needed, when needed for such a mission. For another, a slow, maneuverable liaison plane, given any warning, is really not very vulnerable to attack by high-performance aircraft.

Push 'em far forward

On the other hand, light AA automatic weapons could be deadly against the low-and-slow plane. But to be able to engage or even to deter aircraft on the enemy side of the line of contact, antiaircraft weapons would have to be deployed well forward, as part of the general outpost and, after its withdrawal, in the zone of the infantry outfits in contact. So located, the M42's range limitation is not as restrictive as it might seem. Assuming that our AA automatic weapons will be sited near the reserve company, it seems reasonable to conclude that they will probably be no more than 800 yards from the main line of resistance, leaving them still with a reach of upward of a thousand yards of effective range into enemy territory. In brief, they would have range sufficiently effective for a good chance of registering hits on any light aircraft venturing close enough to observe accurately. Even if we go to an extreme and rule out the likelihood of actually destroying the target, we must not ignore the psychological effect of bursting flak, whether or not it is at maximum range and due to nothing more than the projectile's self-destroying feature. We must not overlook the fact that if an observation plane is forced to fly farther to the rear of its own lines, or to fly higher, or even if the observer's mind is diverted, the effectiveness of the enemy's reconnaissance has been reduced and we have accomplished something definite.

To use antiaircraft automatic weapons in such a role we would have to alter our present tactical doctrine, but the value of AWs employed under present doctrine is certainly open to some question. Furthermore, their forward employment would make more feasible their use in the ground-support role—a mission which now can usually be undertaken only at the expense of their AA role.

Of course, a forward position from which the M42 can deliver effective antiaircraft fire cannot be selected with as much of an eye to cover as can a site from which it can provide ground support. Usually a good AA position is exposed, and if near the line of contact, can be expected to attract a disturbing amount of enemy attention.

To avoid losing weapons to night raids, positions must be carefully selected, evacuated after dark, and reoccupied just before dawn.

Vulnerability might also be reduced by seeking positions which, while not themselves suitable for antiaircraft sites, provide cover and concealment and from which the unit can speedily move to good AA positions nearby, thus taking advantage of the M42's self-propulsion. Certainly, too, as soon as an AW has fired, it should move out. In other words, we must be ready to shoot and scoot.

It might also be desirable to locate automatic weapons in pairs, so that while one delivers antiaircraft fire the other can lay down covering fire to inhibit any enemy counteraction.

Regardless of the precautions, light antiaircraft AWs would undoubtedly be more vulnerable than in their present mission. Even if a piece were lost after accomplishing its mission, the trade might be worthwhile—perhaps not in terms of one M42 for one enemy liaison plane, but in terms of one M42 expended to save an infantry battalion. For on an atomic battlefield a battalion pinpointed may well be a battalion lost.

The point is not to decide first if the job can be done, but if it *needs* to be done. If it must be done, we must find a way to do it. Perhaps a surer means will be found for preventing an enemy from effectively exploiting his tactical atomic capability. But until that is done, his air observation is a major part of his threat. We must recognize it for the danger it is and counter it by making the best use of the means we have at hand —our light AA automatic weapons.

The Separate Roles of Early Warning and Surveillance Radars

Adequate and timely information on hostile aircraft from both early-warning (Air Force) and surveillance (Army) radars is necessary for the proper functioning of the air defense system

MAJOR CHARLES L. BACHTEL

THERE has been a lot of discussion about the roles of early-warning and surveillance radars in air defense. The situation isn't exactly new, having been bandied back and forth for the past several years. A feeling exists in certain quarters that Army surveillance radars duplicate the Air Force system and that all radars, early-warning and surveillance, should be Air Force installed, operated and maintained regardless of location. In addition it has been proposed that existing Army antiaircraft surveillance radars be eliminated and all radar input for the antiaircraft system be provided by the Air Force. Such proposals prompt a serious look at the over-all function of the air defense system rather than a delineation of responsibility as to who does what and when.

Surveillance radars are and have been a proven integral part of Army antiaircraft. By an analysis of facts, it follows that they should not only be retained, but that full freedom of action should be given antiaircraft commanders regarding their numbers, location and usage. Adding further complexity to the problem is the fact that the Civil Aeronautics Authority (CAA) is also in the act. The CAA is installing radars throughout the country for commercial air control usage. In most instances, the CAA radars are installed within an

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Army surveillance radars are tactically located around the outer periphery of defended areas to receive hostile target information from the long-range early-warning system

antiaircraft defended area and accordingly, its radars overlap and duplicate the Air Force and Army systems. As a result of these and other factors, there has been a misunderstanding of the operational roles of the radars of the services. This misunderstanding is dangerous and definitely needs to be explored and understood in all of its ramifications.

Different by definition

From an antiaircraft point of view, a general definition of the terms "Early-Warning Radar" and "Surveillance Radar" might be a bit helpful here:

EARLY-WARNING RADARS are high-powered "search" radars deployed on an *area* basis to provide long-range (strategic) early-warning information.

SURVEILLANCE RADARS are "tactical" radars deployed around antiaircraft defended areas to track hostile targets passed on from the Air Force long-range early-warning (search) system and to pick up random targets (not picked up by Air Force radars). They "carry" these targets until they are transferred into the acquisition system of the defense.

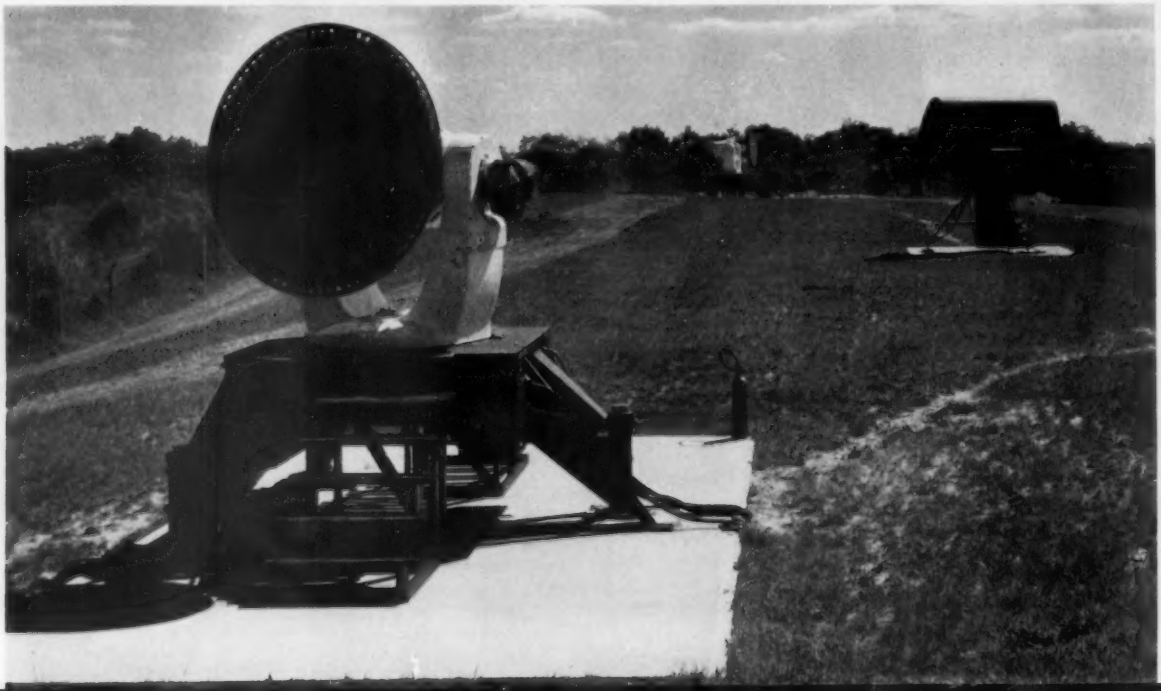
Any discussion of radars and radar systems must necessarily consider their deployment and operation. In addition, the type, altitude, speed and radar cross-section (reflectivity area) of the hostile craft, both aircraft and missiles, must also be considered. The threat that must be countered dictates the type and number of radars, how they should be deployed and, to a large degree, how they should be used.

A cursory review of the type and variety of weapons that could be employed in a determined large-scale enemy air attack indicates that interception and destruction of attacking weapons by manned interceptors is definitely impossible for all missile-type craft and quite improbable for a goodly portion of the airplane-type craft since bomber development in recent years has outpaced manned interceptors. As a result, a greater degree of dependence must be placed upon defensive antiaircraft guided missiles. An ideal situation of course would be to engage and destroy all hostile weapons long before they reach the vulnerable areas. However, since this cannot always be accomplished, guided missile defenses have been installed around our major cities, industrial complexes and other vital areas to engage and destroy penetrating hostile craft. With this or any other type of strategy, it can be seen that adequate and timely early-warning information is mandatory. The difference between long-range interception of attacking craft far from the defended areas and shorter-ranged interception seventy-five to one hundred miles away using antiaircraft guided missiles, provides the first indication of the basic difference between the Air Force high-powered early-warning (search) radars and the Army surveillance (tactical) radars.

Area deployment of early-warning radar

Since the Air Force, as executive agency, is charged with furnishing early-warning information, of necessity its radars must be deployed on an "area" basis. Area deployment, considering the task at hand, required that the radars be deployed at optimum site locations in and around the borders of the nation to provide contiguous coverage. In addition, northern extensions

The family of radars used at Nike missile-firing unit locations: a missile tracking radar is in the foreground, a target tracking radar in the far background, and an acquisition radar in the center. These radars are remotely controlled and operated as part of the electronic ground environment equipment of the Nike System.



The heart of the DEW Line system station is the air-search radar antenna which rotates inside a protecting plastic housing

The DEW and the Mid-Canada lines extend the radar coverage of the Pine Tree line. Texas Towers, picket ships and long-range early warning radar aircraft extend the coverage seaward

of the system were deemed necessary. Accordingly, the Mid-Canada line and the Distant-Early-Warning (DEW) line in the Far North were installed.

Further, seaward extensions of the system were brought into being. Radar picket ships and long-range, early-warning radar aircraft, including blimps, operating far out over both oceans provide this seaward extension to the continental system.

Texas Tower radar stations also figure in the seaward extension of the system to some degree. The Air Force is installing these man-made, offshore islands and will operate the radar stations. The installation of these radar islands permits the movement of the Navy radar picket ships farther out to sea thus materially extending the radar horizon many miles. The communications of the Texas Tower stations are connected to both the land-based continental system and the Navy-operated seaward extension.

This over-all system is intended to meet the general operational requirements necessary to provide the maximum amount of early-warning information and advanced warning time. An optimum amount of early-warning, strategic or otherwise, for use in detecting, meeting and countering the threat as far out as possible is therefore an absolute necessity. The distance involved definitely indicates that the early-warning search radar system is an entity designed to handle a specific job—early warning. The fact that the Air Force uses the early-warning radars to direct its interceptors is not coincidental but points out the fact that due to speeds and distances, long-range detection of aircraft is a definite operational requirement. Accordingly, it can be seen that the Army and Air Force systems complement rather than duplicate each other.

The separate role of surveillance radar

The Army surveillance radars deployed around antiaircraft defended areas also have a definite role to play, but it is separate and apart from the Air Force role, and is not a duplication of the early-warning system. The requirements and type of operations involved in the Army antiaircraft business have little or nothing in common with the Air Force interceptor role except for a continuing need for adequate and timely warning information. An antiaircraft defense is a modern-day Buck Rogers type of defense built around an area

such as a city, an industrial complex or other type of high-priority vulnerable area. Supersonic all-weather guided missiles are installed in depth at optimum locations around these areas. The associated electronic equipment consists of the surveillance, acquisition, target-tracking and missile-tracking radars, allied computers and the necessary interconnecting data links and communications systems.

In order to open fire in any direction and get off the maximum amount of missiles or rounds at extreme range, it is necessary that the system detect, locate and keep targets under observation with organic tactical (surveillance) radars, acquire them with acquisition radars and track the targets and defensive missiles with tracking radars. Each part of the over-all system has a definite function to perform in order to insure the positioning, fixing, computing, tracking, missile guidance and ultimate destruction of the hostile craft. Nothing is left to doubt—nothing is duplicated—nothing wasted. Each factor is positive in action and results. This is extremely important for a number of reasons:

(1) If and when enemy craft cross the extreme outer danger line and get close enough to a vital area to be engaged by antiaircraft weapons, the long-range interceptor force will have either exhausted its capabilities, been overwhelmed, spoofed by deceptive tactics or outmaneuvered. At this stage of the game, nothing remains between the attacking force and the defended areas but the antiaircraft defenses.

(2) Engagement at the extreme range of the defensive antiaircraft weapons is mandatory in order to permit the firing of the maximum number of missiles or rounds from each antiaircraft fire unit.

(3) Detection, carrying and definite positioning of the targets with the surveillance radars is necessary to permit the acquisition radars to pick up the targets in a "fired-up, ready-to-go" system.

(4) In the event an attacking force might possibly employ a maximum amount of electronic jamming techniques, the use of diversified frequencies with the surveillance, acquisition and tracking radars provides a considerable over-all "built-in" flexibility. This inherent flexibility will still permit target engagement even though a portion of the over-all system is being jammed by the enemy. Further, it forces the enemy to carry a considerable variety and amount of jamming equipment and associated gear for use against the defense, thereby cutting down on the potential payload and fuel capacity of the attacking craft.

The problem of ballistic missiles

Missiles such as the intercontinental ballistic missile (ICBM), intermediate range ballistic missile (IRBM) and certain of the shorter-ranged weapons present a problem due to their speed and small radar cross-sectional (reflectivity) areas. These new weapons operate at speeds and altitudes far beyond the capabilities of conventional aircraft. In the event that anti-radar reflectivity materials can be perfected that will meet the weight, strength and heat-resistance requirements necessary at the 12,000- to 18,000-miles-per-hour speeds of these weapons, detection will become extremely difficult. At these speeds missile travel time from launch to burst is something less than twenty-five minutes for a 5,000-mile trip. For lesser distances, travel time is reduced accordingly, making the problem of detection and interception even more acute.

New radars, intercept missiles and allied guidance systems are currently being built for addition to the nation's defenses to detect, acquire, track, intercept and destroy such attacking craft. Of necessity, such a system will have to be automatic. In this era, there will be no such thing as the old-time early warning since seconds rather than hours and minutes are now all important. Surveillance radars will probably be combined with the acquisition radars as a dual-purpose system. The communications linkage required to connect the ground-environment facilities of the new system will be intricate and enormous.

Over-all deployment is naturally fraught with many problems and difficulties. However difficult it may appear on the surface, the defensive capability of the nation must be and is being strengthened with this and other systems designed and built to meet the increased threat. Meanwhile, the existing system will continue to be used to counter the low-altitude threat of the air-breathing weapons.

Beyond the calculated risk

The Army surveillance radar program should go forward without delay before irreparable harm is done to the current and future national antiaircraft defense capability. Army surveillance radars are a definite requirement in the antiaircraft system and in the over-all defense structure. These radars provide the flexibility and over-all effectiveness necessary for optimum kill potential. Without them, effectiveness is reduced to a point well below the "calculated risk" level.

Acquisition and tracking radars would not be able to acquire targets at maximum range since they would be searching for rather than taking action on known-positioned targets. Accordingly, the maximum number of missiles would not be fired. We can ill afford this. If we abolish Army surveillance radar, it may well mean the difference between winning or losing the air battle. Anyone who has seen Hiroshima and Nagasaki needs no further proof of what a city looks like after an atomic blast.

The Army Air Defense Command continues to make an all-out effort in behalf of the air defense of the nation as it has over the past six years and will play an even greater part in the future as missiles take over from manned interceptors and antiaircraft guns. A lot of progress has been made and the help and understanding of all are needed. "A little more grape, Captain Bragg."

Lots of ALLIES

COLONEL JOHN DIBBLE, JR.

Each year some 4,000 foreign officers from sixty-two countries attend our service schools. We (and they) can get bigger dividends from the investment if we put more energy and imagination into breaking through the barrier of language and custom

THE music rose as the burly hombre in cowboy clothes clanked his spurs on the well polished dance floor. Passing our table, he greeted us with "'owdy pardnaire," stepped up to the mike and treated us to "Madelon" in a rich baritone. This was Fort Sill, 1947. The cowboy was Pierre Evard, our French student, and he was climaxing an evening during which Englishmen and Scots from the United Kingdom had enlivened our dance with their interpretation of cowboy ballads. At the time there was some talk of an international organization called the Western Union, but it was hard to realize that it wasn't the telegraph company that was being discussed. Some of the instructors were being selected for a mission to Greece, and although NATO hadn't been conceived yet, most of the foreign students at The Artillery School were from what later became the NATO countries. I know we had Turkish students because their cigarettes made such an impression on me.

In the years since 1947 we have become more and more involved in arrangements for mutual defense. The entire Far East exploded in our faces in 1950; the Middle East is in turmoil; Soviet Russia is no less truculent and still presses uncommitted nations to come into the communist camp. We face the problem of modernizing the weapons systems of friendly nations, and our more advanced NATO allies are plugging for the latest guided missiles and atomic weapons.

A critical part of our increased world-wide involvement is the corresponding need to increase the volume and the quality of the training we give to students from friendly and uncommitted nations. We must improve our methods for teaching increasingly large numbers of non-English-speaking students, and we must provide wider opportunity for them to learn English. Finally, and perhaps most important, we must not miss any opportunity to make the foreign students sincere friends of the United States.

What are we doing now?

The logical questions are: What are we doing now? Isn't what we are doing adequate? If it isn't, what improvements can be made?

Fortunately, we are doing a lot. The service schools, the MAAGs and the overseas commands have, in most cases, attacked the problem of foreign military training with energy and imagination.

One of our largest problems, because of its scale, is the expanding program for training non-English-speaking students. This training is presented to groups of from thirty to two or three hundred students in a class. Its original purpose was to give a quick boost to the officer corps of countries which were just starting or reviving their armies. Now, with advanced weapons

Colonel John Dibble, Jr., *Artillery,* an occasional contributor, is presently a student at the Army War College.

training and more advanced technology, it can be foreseen that many of our older friends will also require this type of training.

I saw a good example of non-English-language training on the range at the Infantry School two years ago. Two hundred young Vietnamese officers were taking subcaliber training on the 57mm recoilless rifle. Range commands given in English were repeated in Vietnamese and corrections were made through interpreters. The major and the crew in charge of the range had run Koreans through the same course and were old hands at it. Given adequate interpreters who could be trained well in advance of the rest of the students, the major said he'd have no difficulty in running large classes for any country you could name. The senior Vietnamese interpreter, Captain Tam, said that although the officers couldn't speak English before they came to the course, eighty per cent of them were taking private English lessons.

No spare time for students

In reply to the question, "what do the students do in their spare time?" the answer from the foreign student supervisor, Lieutenant Colonel Trainer, was "Study. It isn't easy to take training in a foreign tongue even with an interpreter, and most of them find that they have to burn a lot of midnight oil to keep ahead of the game." As a result, many of the service schools find that the average of foreign student grades is higher than that for students from the United States. There are many factors that enter into this phenomenon, though. The foreign students are hand picked; next, many of them would hate to go home if they failed or made a poor showing; and then there are reasons such as competition between countries and the thirsty craving for knowledge that is a national characteristic in many countries.

Audio-visual, binaural or electronic language laboratories are the most effective training aids that we've found for teaching English. In Vietnam, for example, a Philco Corporation technician uses twenty such labs to train 320 Vietnamese students a year. He is assisted by ten Vietnamese instructors. Vietnam will soon have sixty labs, and will be able to turn out 960 English-speaking students a year. In addition, the Vietnamese-American Association in Saigon teaches English, using conventional classroom methods. The combination of the two systems, aided by the backing which President Diem gives to the English language training program, produces gratifying results.

Importance of language training

Why do we put so much stress on English-speaking training? Wouldn't it be easier simply to continue conducting non-English-speaking classes through interpreters? This would knock out much of the present need for English-language training and would simplify the problem for both the foreign country and MAAG. Academic standing, however, isn't the only measure of the advantage foreign students get from training in the United States, and we are making every effort to improve their ability with English so that they can join United States students in English-speaking classes. This allows them to get to know their U. S. friends, join in classroom discussions on controversial points and enter into the give and take of the school's social life.

English-language training, however, is only one example of our efforts to help the foreign students to feel themselves a part of the community and to understand the United States.

At Fort Knox, the foreign students are invited to all of the various civic and fraternal clubs and frequently are asked to address them. Each student has a faculty sponsor for social as well as academic friendship.

Every Christmas, the Ordnance School at Aberdeen Proving Ground conducts an "Experience in America" during which the foreign students there visit a wide variety of typical American activities within a two-hundred-mile radius.

Fort Benning gives each foreign visitor a courtesy booklet to Columbus, Georgia, welcoming him as a guest of the city. The booklet is signed by the President of the Chamber of Commerce and the Mayor.

The Command and General Staff College at Fort Leavenworth does more for the foreign student than any other school. Leavenworth is permitted a larger staff to manage foreign student affairs and is the only Army school authorized an audio-visual language laboratory. It's fortunate that Leavenworth is so well equipped, because a total of one hundred forty foreign students attend school there every year. To the foreign student, the Command and General Staff College is the "apex of the Army schooling system." Therefore most of the foreigners who go there are either influential or potentially influential in their home countries. Leavenworth is the one Army school to which we encourage wives to accompany foreign students. The wives are welcomed at Leavenworth and made to feel a part of the close-knit student community. Betty Connor, the wife of a faculty member, has an International Club that brings the foreign wives into the world of our "golf and Friday examination widow" and lets our wives learn about *saris, apfelstrudel* and *damascine*. One year, all of the foreign students at Leavenworth attended the Kansas City Royal Horse Show as guests of the Kansas City Livestock Exchange.

An ever-expanding problem

What I have given is a small sampling of the methods we have been using to make the Foreign Military Training Program work. Other schools and MAAGs have developed methods which either fit their own particular training problems or can be adopted by other schools. Some of these methods are the basis for the recommendations which I'm about to make. To accept these recommendations in the proper light, it is necessary

to understand that the training program at Army schools in the States is big. It includes about four thousand students a year, representing sixty-two countries. The program grows every year. Today we have students from countries that we hardly had any prior contact with. As a result of the program's growth, in almost any direction there are improvements, refinements and just plain changes to be made. Some of the schools need better and bigger advisory staffs for foreign students. Some need to round out more completely their sponsorship programs. For example, at some schools foreign students' classmates are their sponsors, while at one school, officers on the post, without regard for their assignments, are selected as sponsors based on their background and interest in a particular country. A combination of these systems should be tailor-made to fit each particular school and level of student.

As I pointed out earlier, Leavenworth is the only school that is authorized the use of the language laboratory. Each foreign student going to the Command and General Staff College reports two months early if he comes from a non-English-speaking country or one month early if he comes from an English-speaking country. The first month is spent in brushing up the student's English, while the second month dwells on the technical terms used during the CGSC course and on the organization of our armed forces. If a student is unusually well qualified in English, he is excused from the first month.

More language laboratories essential

Many of the other schools need the language laboratories, and for the longer courses, should bring foreign students in a week or two early for orientation. This will be particularly true as we go into more and more technical training in guided missiles and electronics. As a bonus, the same language laboratories used to train the foreign students in English could be used to teach our own officers foreign languages.

Along the same line of helping the student to understand the instruction, a common plea from the foreign students is that the instructor slow down a little so that they can understand him. This ties in with the old instructional platitude of speaking "loud enough to be heard and clear enough to be understood." A lot of us work ourselves up to a fever pitch of enthusiasm when we warm to our subject, and even U. S. students have trouble in following a machine-gun delivery, while the foreign students get completely lost. This is a problem that can be solved by the instructors and supervisors themselves.

The improvements that I have mentioned deal with the English-speaking student. We will also have the problem of teaching relatively large classes of non-English-speaking students through interpreters. Nike training at Fort Bliss, for example, will require bringing in groups of approximately one hundred students at a time to take academic training and then bringing in two hundred at a time to train operationally with the 1st Guided Missile Brigade. The students who take academic training may be English-language qualified, but it is probable that those who will train with the 1st Brigade will not speak English and will need interpreters.

How to solve the problem

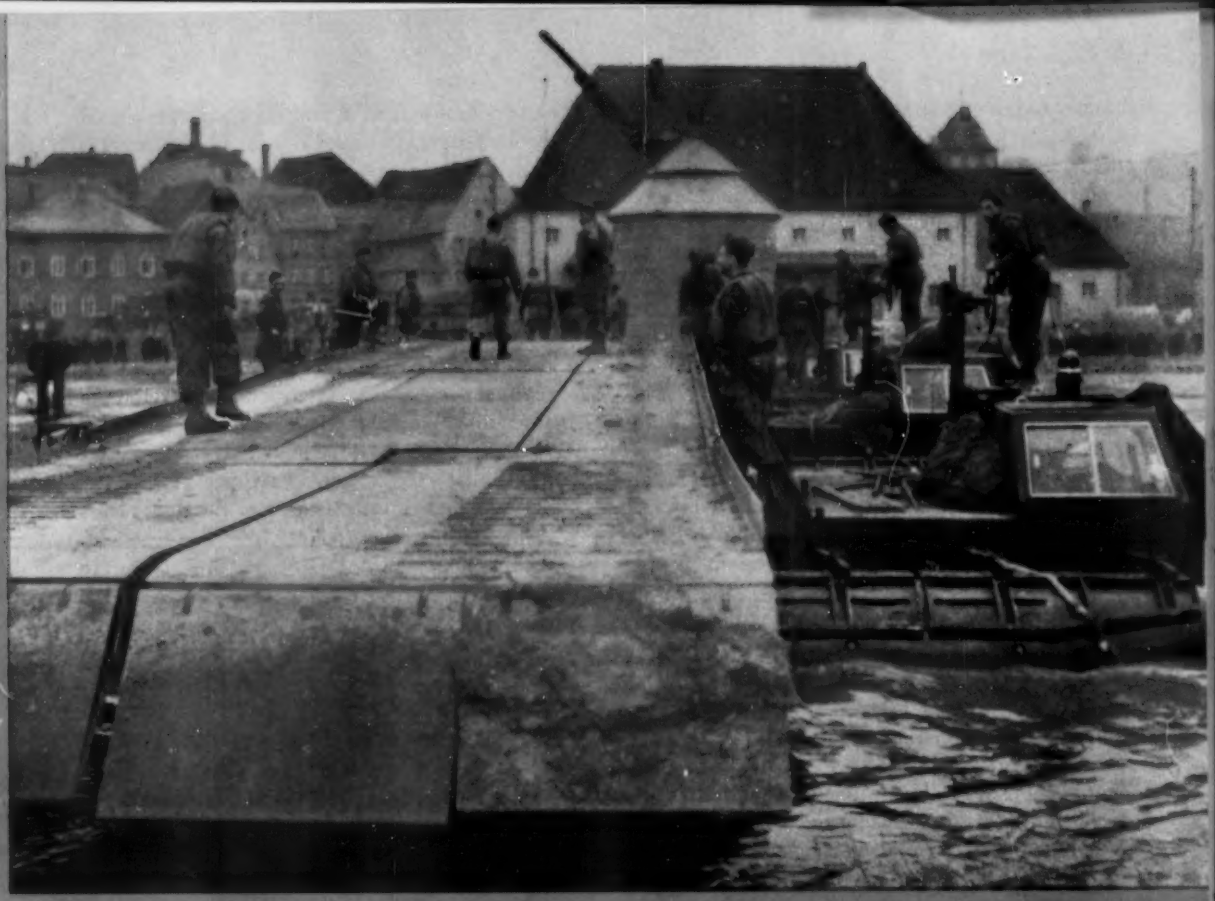
Our past experience with even the most basic subjects has proved that interpreters are as much assistant instructors as they are interpreters. Therefore, to do any good, they should take all or at least a representative part of the course for which they will interpret. This means that special courses require plenty of advance planning and can't be laid on at the drop of a hat.

The problem of making the non-English student feel that he is a part of the American community cannot be solved by throwing a large cocktail party. Even with interpreters present, after a feeble initial attempt at congeniality on the part of the non-English-speaking students and their hosts, who for the most part speak only English, the party breaks up into two groups and an apologetic or even antagonistic atmosphere pervades the whole affair.

Ways of solving this problem of bringing non-English-speaking foreigners into the community are still wide open to anyone's imagination, but several approaches have brought at least partial results. The first is to conduct off-duty voluntary English-language classes with officers, enlisted men and wives volunteering their services as instructors. Many of the voluntary instructors strike up friendships with their students, invite them to their homes, to post functions and act to bring the foreign students into the community. Another approach is the small home gathering at which interested U. S. instructors and students invite the foreign students to meet some of their more congenial friends at their homes. For these affairs the interpreters are much in demand.

Still another way is to conduct tours of typical local points of interest and trips to sports events, making full use of the interpreters. This approach doesn't bring the foreign student into close contact with Americans, but it at least shows him what our people do outside an Army post.

The people who have been working with the foreign students both in the MAAGs and at the service schools know of the program's weaknesses and also realize the one glaring truth that an expanding and constantly progressing program like this one can't be met by haphazard, spur-of-the-moment actions. It requires careful, well-coordinated action and, above all, adequate lead times if the program is to be a credit to the United States. The big danger lies in rapid turnover of personnel within the "one year tour" MAAGs and at the service schools without adequate orientation for the newcomers. Progress is called for, but not an unconsidered upsetting of the applecart.



French Army engineers putting the finishing touches to a three-unit ferry raft before ferrying 4th Armored Div. troops across the Main River. The hydraulically operated landing ramp is slightly raised to clear the river bank

RIVER CROSSINGS—FRENCH STYLE

Multipurpose Ferry and Bridge

A multipurpose amphibious vehicle which can be used singly or in multiples as a ferry, or linked together to form a bridge, made its first appearance with U. S. forces during Seventh Army's Exercise SABRE HAWK (see page 16). Designed by a French Army engineer, the equipment is similar in appearance to the U. S. Army's DUKW. It is approximately 36 feet long and 11 feet wide. Its 220-hp engine provides power for travel on both land and water, for its hydraulic system, and for inflating its side-mounted auxiliary pontons. The unit can do about 45 mph on land on retractable pneumatic-tired wheels, and about eight mph on the water.

Mounted on its top, parallel to the body, is a steel truss which can be pivoted 90 degrees for use as a bridge bay, or as part of the deck of a multiple-unit ferry. For use as bridge shore-ends or ferry landing-gangways some units have a hydraulically operated ramp which can be folded back on the deck surface. Retractable racks on the sides hold the inflatable rubber pontons which help bear the load-weight. These pontons can lose half of the air in them and still do their job.

Four units can be joined together by skilled troops in less than twenty minutes. An experienced truck driver needs only an hour's familiarization with the equipment to operate it and four men make up the entire crew necessary for each unit.

During the maneuver, two of the ferry units moved 60 ¼- and ¾-ton trucks and trailers, and one complete company of armored infantry across the Main River in a day. Another ferry unit crossed 78 ¼- and ¾-ton trucks, half with trailers, in a little more than three hours.

Wheels in travelling position, hinged propulsion unit folded back over the cab, pontons deflated and folded on the deck, and retractable ponton brackets folded into their recesses make this unit ready for travel over land.

Elements of Company B, 41st Armored Infantry Battalion, 4th Armored Division, prepare to debark from a multiple-unit ferry. Detail can be seen of pontons and brackets, hinged propeller unit and hydraulic ramp controls (near hand of crew member, lower left)

A four-unit ferry swims across the Main for another load of troops

THE MONTH'S CEREBRATIONS

ONLY A PFC

LIEUTENANT CHARLES D. BUSSEY

Whenever I hear an officer say, "We'd better not put *him* on the job; he's only a PFC," I wonder what has become of the traditional practice of delegating duties. This business of denying the low-ranker an opportunity to lead is spreading at too great a rate.

Why can't we depend on any soldier to do a job and not have to wait for his arrival in the noncommissioned ranks? If we continue to wait that long the practice may prove tragic. I venture that in some units the practice has reached such a pass that commanders are reluctant to assign certain tasks even to young sergeants. A soldier, whether private, specialist or noncommissioned officer, thrives upon being made responsible for seeing that a task is well done. Detail him to only menial duties and his initiative fades, ambition dies, and he becomes sullen and listless, a human robot who does what he is told to do—but no more. I am sure that a young soldier who contemplates making the service his career finds nothing more discouraging than being constantly overlooked because he has never been given a chance to prove himself. He has made no great impression through no fault of his own. If allowed to spread, this snubbing of the young soldier can lead to stagnation and unrest which can impair, if not destroy, a unit's combat potential.

Let's examine one or two reasons for denying the youngster a chance because "he's only a PFC." Perhaps one commander does it because at one time or another a young subordinate failed him. The aftermath of the incident still rankles, and he fears a recurrence. I think too many commanders consider the private not as a soldier capable of leading, but only as one who must be led. Educational background undoubtedly figures in other decisions. The private is regarded as low class, mentally incapable of assuming responsibility. Needless to say, these reasons don't always stand up.

Speaking of mental capability, we need only note the relatively large percentage of drafted and enlisted soldiers whose backgrounds range from high school completion to graduate study. Many have had experience either in ROTC or at military schools. Among high school graduates are scores of family heads who have held jobs with considerable responsibility. Some have been outstanding in athletics, long recognized as a character builder. Given a chance, soldiers like these would blossom into better than adequate leaders.

But how about the lowly private whose experience has not carried him through the influences I have mentioned? Should he be given responsibility too? I say he should. I have tried it, and seen how delegating a little authority to some less apt soldiers works wonders. I think most of us fail to realize that the majority of those who appear backward need only a slight pull—not push—to get them going. If poorly done it can become a touchy and risky thing, but it's also true that that little tug has many times transformed what seemed a hopeless dud into a standout soldier.

To avoid the risk of allowing our units to become ineffective, we must learn to delegate authority by recognizing and being confident of the latent abilities in our soldiers, whether sergeants, specialists or privates. Don't overload the willing old work horses. You can get the job done by giving the promising and industrious youngsters a chance, and supervising them. Privates first class are soldiers too.

Lieutenant Charles D. Bussey, Infantry, *was commissioned in 1955 after graduation* (summa cum laude) *from North Carolina A&T College. He is now a platoon leader in Company A, 1st Battle Group, 87th Infantry.*

TRIM THE M1 TO FIT OUR ALLIES

COLONEL CHARLES ASKINS

WE have supplied our military rifle to the Filipinos, the Chinese Nationalists, the Koreans, the Japanese and the Vietnamese, and have made strenuous efforts over the past decade to teach them to fire it. The M1 was not designed for people as short of stature and limb and as light of body as are most of our Asiatic allies.

While engaged as chief advisor on marksmanship to the Vietnamese Army, I found that it is difficult for their average soldier to master the M1. For him it is too heavy, weighing what amounts to virtually one tenth of the soldier's poundage (rifle, 10.25 pounds, soldier, 110). The 12.9-inch stock is too long, having been painstakingly designed for the average American soldier, a man averaging 5 feet 8.4 inches and 154 pounds—a big man compared to the tiny Vietnamese who averages 5 feet 1.8 inches.

Many of our marksmen never learn to live with the M1's sharp, punishing recoil, which causes them to flinch wildly. The ability of the M1 marksman to absorb the kick is closely related to his size, most especially as regards height and weight. It can be readily understood that if a marksman weighing more than 150 pounds flinches from the recoil, the diminutive Oriental most certainly will do the same. We have then a very definite case against our rifle in the hands of our Asiatic allies, objectionable on the score of

weight, stock length and recoil.

What to do about it?

The first thing that comes to mind is to replace the M1 rifle with the carbine—hardly an acceptable solution because of the lack of power, short range and marginal performance of the smaller weapon. Then too, the stocks of the M1 rifle and the carbine are of similar length. Also the carbine is passing out of use in our Army. Some other solution must be found.

The weight problem is a difficult one. The manual says the M1 weighs 9.5 pounds, but physical checks on ten rifles selected at random reveal that the average weight runs 10.25 pounds. The density of the walnut in the main stock varies the weight as much as .75 pound. With sling, oiler and thong case, combination tool, and fully loaded, the rifle's total weight runs to 10.25 pounds. The stock can be either modified or completely redesigned, lightened and shortened. As much as one pound can be trimmed from the stock and yet not so reduce its size that it would be too fragile for combat use. However, experiments conducted with the lightened stock show that while it is strong enough for field use, the lightened version completely ruins the weapon's balance.

The stock can be easily shortened. I conducted a test where a group of one hundred Vietnamese troopers selected at random improved its marksmanship standards by 5.6 per cent with the shortened M1 stock. More significant, when this 100-man group was questioned individually, 99 preferred the altered version.

The recoil problem is a tough one too, but not impossible to solve. Most of the M1 rifles now in the hands of Vietnamese are in critical need of barrel replacement. These weapons were manufactured during the early 1940s; after three years in training centers or in combat overseas, they were given to the French forces who fought through eight years of jungle warfare against the Communists in Indochina. Then the weapons reached their present owners, the army of the new Republic of Vietnam. Small wonder that a high percentage of these barrels must be replaced, and very soon.

In rebarreling, the bugaboo of recoil could be effectively overcome by the simple expedient of changing caliber. The Japanese commenced World War II with a 6.5mm (caliber .25). After experimenting with a larger cartridge they are now ready to swing back to the 6.5 which they say is better suited to their soldier. The Vietnamese, the Koreans, the Chinese Nationalists, the Filipinos, and the rest, could very profitably follow suit, not by adopting the old Japanese 6.5mm cartridge but by accepting a modern round of caliber .24 or .25.

On the face of it this has all the appearance of a major developmental project. Actually, it would be nothing of the kind. The newly adopted and completely standardized U. S. Army cartridge (the 7.62mm NATO) would serve as the basis. But since to all practical purposes this cartridge develops the recoil of the caliber .30 M2 round, obviously nothing would be gained by considering the cartridge in its present form.

We might use only the 7.62 shell casing, loaded with either a caliber .24 or .25 bullet of 100 to 125 grains that develops a velocity in the neighborhood of 3,000 feet per second. Such a cartridge would develop only 60 per cent of the recoil of the present caliber .30 round and would be infinitely more tolerable to the 110-pound Oriental. At combat ranges (that is, up to 350 yards), the cartridge's accuracy, trajectory and killing power would be completely acceptable. A caliber .243 cartridge is in commercial production today which has the 7.62mm shell casing. It is simply necked down from the standard dimension of 7.62mm (.30 inch) to .243 inch. It is just as simple as that. This new .243 cartridge drives a 100-grain bullet at 3,070 feet per second, with a trajectory at 300 yards of only 5.5 inches; the new standard NATO round does not do as well, developing 6.5 inches.

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WHIP YOUR OWN RE-UP PROBLEM

CHIEF WARRANT OFFICER ROBERT E. BROWN

In our Army we consider the problem of retaining trained soldiers as one of command, and the rate of reenlistment—along with AWOL, serious incidents, delinquency reports, vehicular deadlines and accidents—as a reflection of the commander's ability. Essentially, the performance of a commander's unit in these areas influences his rater's comments on his efficiency report. What we overlook is that any member of a unit who makes decisions or recommends actions affecting the soldier can influence his attitude toward reenlistment.

Reenlisting a soldier to fill his own vacancy is simply a problem in human relations. We've all known career soldiers who took their discharges and reenlisted elsewhere. Not always does the other pasture appear greener. Sometimes it *is* greener—and the reason it looks that way might be right in your outfit. Does your staff, in solving a problem, consider how the decision will affect the troops? Do you condone policies that, when fairly evaluated, come under the heading of harassment? Have you thought enough about improving the well-being of your men? I believe answers to questions like these hold the key to a satisfactory reenlistment rate.

Stop for a moment and evaluate *your* reenlistment program. Before you say "Why should I, when I have an officer who handles reenlistments for me?" I'll ask, "How many AUS and first-term RA men have you *lost?*" Unless you are reenlisting half of your RA soldiers who are completing their first enlistment, and a quarter of the two-year draftees, something is wrong in your outfit.

Regulations require that the company or battery commander conduct

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the reenlistment selling interview. That interview is the critical point, for you are the man who controlled the potential reenlistee's promotion, assignment, leaves, and any number of other actions. Properly handled, a decision to reenlist can be arrived at during this meeting. An unprepared, unenthusiastic interview can tilt the scales toward decision to leave the service.

A complaint that seems general among small-unit commanders is that a CO does not have the time to carefully prepare for or to conduct the interview. Such a complainer is the commander who clamors for a replacement for a key position that he might have filled himself by reenlisting an incumbent in his own vacancy. Preparation for the commander's interview should include a review of the soldier's records and his pre-service background. You must help him evaluate his potential in terms of continuous service against a career in civilian life. You must chart his course in the service so as to show him what your unit can offer, for the soldier wants to know, should he decide to reenlist, his chances for advancement, change to a different career field, attendance at service schools, and many other phases of a future life in the service.

Some commanders' reenlistment efforts consist merely of calling the short-timer into the office and asking him if he is interested. Usually, a negative answer ends the interview. Then there is the officer who feels that the way to sell reenlistments is by conducting a group meeting of all hands due for discharge during the coming few months. Worse, there are many commanders who don't even bother to ask their men to reenlist. Apparently these people are not sold on their own careers, and don't believe in their own Army enough to take time to sell it to others.

Who wants to reenlist in an outfit whose commander shows little interest in his men? Are you, a unit commander, happy to serve under a superior who shows no interest in *you*? Reenlistment bonuses, opportunities for travel and adventure, early retirement, a generous leave policy, are all incentives toward reenlistment, but these things lose their value when commanders show they lack the personal touch in dealing with their men.

We've all seen units billeted side by side, living under the same conditions, working the same long hours. In one outfit men reenlist to stay with the team; in a second unit they depart for greener pastures. Take a close look at the leaders, and you'll find that in the unit with the high re-up rate the commander takes a personal interest in the welfare of his men. In the other outfit you'll discover a lackadaisical, defeatist attitude, from top to bottom.

It is plain to see that where a high reenlistment rate prevails, the unit's commander has taken a genuine interest in his men. Such an atmosphere doesn't just happen. It is brought about because emphasis on fostering such relations began at the top of the command chain and continued down without skipping a link. One of Lieutenant General Bruce C. Clarke's "command guidelines" goes something like this: "An organization does well only those things that the boss checks." Set yourself to applying this excellent advice in human relations, and you'll soon whip your reenlistment problem.

***Chief Warrant Officer Robert E. Brown** entered the Army in 1941. After being commissioned from Armor OCS he served in various command and staff assignments, reverting from major in 1957. He has been Reenlistment Officer of the 2d Armored Division and is currently its Personnel Officer.*

COMPANIES ARE FOR CAPTAINS

CAPTAIN WILLIAM J. ANKLEY

While we have more than enough captains of infantry today, lieutenants are commanding companies all through the Army. I do not mean to cast aspersions upon the efforts and abilities of lieutenants, but why give infantry company command to officers with less than five years of service when we have an excess of captains, many of whom have been several years in grade?

By the time an officer passes through the necessary schools and the normal permanent changes of station he will have spent considerably less than five years with troops before he makes captain. Deduct from this the periods of non-company duty and he actually has a very short and limited time to gain the line-company experience he needs. In many cases he takes over a company while still a second lieutenant. No matter how diligent he may be, his almost total lack of experience at this stage will affect both the unit and its men. Regardless of the type of company, the commander is the key man, and we should put our most experienced officers in that job.

Many say that today company command is not what it used to be; others say that the important thing is to get it over with so you can get on the staff. Perhaps the feeling persists that better efficiency reports are forthcoming as a staff assistant or that company command duty is a hard job with long hours and too many responsibilities, although it looks good on the record. Whatever the reason, units shed company commanders with the seasons.

Consider the effect this turnover has upon the unit. Any company reflects its commander's policies, quirks and, perhaps important, his ability and leadership. You cannot make a company into what you feel it should be within a few days. First, you must get to know your officers. You must get to know your noncommissioned officers even better. Lastly, you must get to know your privates. Each unit has its own individuality and you must learn to understand it. All these things take time and experience. There will be delays and failures along the way and those who believe a six-month stint is sufficient are sadly mistaken.

We need well-trained infantrymen as desperately as we need good technicians. These men are the core of all line units and yet the most difficult to retain. There are many aspects to the problem, some beyond the control of the company commander. But at least we can place the most seasoned and experienced officers in command of our infantry companies and let them exert their ability and their leadership on those units and upon their men.

It takes time to train and season commanders, but it sometimes seems we are busily concentrating upon seasoning future senior commanders to the complete neglect of the junior ones. Soldiers do not learn from a company commander who lacks experience. A young officer benefits from the experience of a more seasoned company commander—one who realizes that a new

officer makes mistakes through trying and not by failing to try. The company commander can help the new man by correcting where necessary and by offering better solutions.

The platoon is where we should season our young officers. A young officer who after a fair trial cannot measure up as platoon leader should not be shunted aside to some other duty, because later, when he returns to troops, the result is too often inevitable and disheartening.

If he can't master his primary field he should be assigned to a branch where his talent lies or he should be relieved from active service. The time for this is while he is still a lieutenant. When he makes captain there should be no doubt about his ability to perform his primary specialty. In fairness he must be allowed more time as a platoon leader or as an exec to make mistakes and to benefit from them.

Captain is still a company grade. Therefore we must train our lieutenants to be good captains. After that they will have ample time to train for their futures. An experienced captain commanding a company stabilizes a unit, and its lieutenants learn from him.

Company command is the finest and the most independent duty, and we should put our best officers there.

Captain William J. Ankley, Infantry, *has spent almost all of his service in battalion units. After graduating from the Junior Course at the Marine Corps Schools and a tour with MAAG, South Vietnam, he is on the staff of Landing Force Training Unit at Little Creek.*

STRATEGIC MOBILITY FROM OBSOLETE AIRCRAFT CARRIERS

COLONEL JOHN D. BYRNE

The Navy has obsolete aircraft carriers that the Army could take over in the interests of strategic mobility. They could be an economic way of providing high-speed, ocean-going vessels that can be loaded and unloaded quickly.

The flight and hangar decks could be used for the transport of cargo; a carrier is equipped to house and feed large numbers of people; it has storage tanks for gasoline; it has the communication equipment and staff accommodations to allow for efficient briefing en route. Perhaps most important of all, a fighting vessel, even an obsolete one, has a power plant and a top speed far in excess of an ordinary transport.

Of course, such a vessel could not be considered an assault landing-craft. It would be used to move troops and matériel from a port like Norfolk to a port like Tripoli. If a tactical situation existed in the deployed area, other troops would have to go in first in airborne attack or amphibious assault. The aircraft carrier then would bring a strong follow-up force, making possible more economic use of those always exceedingly scarce resources, amphibious assault shipping and troop carrier airlift.

A few engineering changes could increase the capacity of the carrier for vehicles and troops, and speed up the job of loading and unloading. The crew would obviously be smaller, so some of the crew spaces could be converted for troop use. The flight deck, reinforced as it is for aircraft landings, would support an additional vehicle deck suspended from it in the hangar space. The huge elevators used for lifting planes from hangar to flight deck could be modified for use. In addition, special ramps might be provided for driving vehicles on and off the ship.

Special loading drills could be conducted so that the troops could move by motor convoy from home station and practically roll right onto the ship. In World War II, for example, a highly trained artillery battalion could load aboard LSTs in twenty minutes.

The capacity of the aircraft carrier in terms of troop units should be amazing, because combat-loaded troops and vehicles are bulky and light in comparison to commercial bulk cargo.

This idea should be given a practical test because it appears that airlift will always be a scarce commodity.

Colonel John D. Byrne, Artillery *(USMA 1939), commanded the 39th Field Artillery Battalion (3d Infantry Division) in Africa, Sicily and Italy. He is now on duty at the Pentagon.*

THIS SEEMS TO BE WHERE I CAME IN

LT. COL. CHARLES R. CAWTHON

Man and boy, I've seen a mess of war movies since "The Birth Of A Nation" and in general find them pretty noisy with all the banging and shooting that goes on. In any event, here are scenes I consider to be memorable—if not for drama, then certainly for repetition.

A soldier writes a letter home while sitting amidst the ruins of war.

You can stake your last bag of popcorn on this lad being a gone goose, for you can't have the role of writing a letter home in a war movie and not have to play dead before the final scene. The part of a soldier reading a letter from home, particularly if it involves a camera shot of the letter, is also likely to be short-lived. Apparently a director considers this scene wasted unless it sets the part up for an early demise.

This is the reason, I understand, why actors drawing these roles say "Oh, hell!" They know they won't be working the whole picture.

A soldier from Texas and one from Brooklyn have an exchange of views on the situation that sounds about as follows:

"Ya wal heh foo reh sut cawnbred."
"Geez xya soo ney bagel."

Unfortunately, I can't tell you much more about this scene, or even which actor plays Texas and which represents Brooklyn for each of them sounds like Marlon Brando with a head cold. However, I always suspect the one with the cigar as being Brooklyn.

Part of the rifle company is cut off and the radio operator tries frantically to raise the command post.

"Whoopsie 6 this is Whoopsie 3, Whoopsie 6 this is Whoopsie 3, come in Whoopsie 6," he keeps on and on but Whoopsie 6 doesn't come in and do you know why?

It's because everyone in the command post is daid as you will learn from the next scene which shows the Whoopsie 6 radio squawking away with 3's message while nearby is a

fallen helmet with a bullet hole in it.

A squad-size patrol works its way forward in daylight toward Hill 11¼ through mine fields, artillery barrages, ambushes, snipers and sundry other lethal manifestations of the enemy.

The patrol formation can best be described as "intime," which in this instance means that a kitchen tent fly would cover it from point to rear. At intervals the patrol leader commands "spread out!" in fierce tones. Everyone in the patrol repeats "spread out" and they all gather closer together and move on.

(A near brush with reality, that one. Apparently the necessity of keeping the actor-soldiers within camera range corresponds only too well with the gregarious instincts of patrols.)

The scheme of maneuver strong-armed through by Private Hardrock, a tough, brainy kid, proves triumphant to the manly chagrin of the lieutenant, platoon leader, who has demonstrated throughout sixty minutes of film warfare that he lacks the sense usually found in little green apples.

The scene is the climax of a feud between the two that started right after the introductory martial music and has developed into a really awkward state of affairs. It is resolved somewhat as follows:

Lieutenant—Private Hardrock, I must admit that you have just enabled this platoon to rout an enemy division supported by armor.

Hardrock—Well, Lieutenant, though our methods seem somewhat at variance, I hazard the thought that there is room enough for both of us in this man's army.

Somehow, I am not as generous as Hardrock, for I am beginning to wonder if I have room for any more war movies—that is until the one is produced showing how my outfit won the war.

Lt. Col. Charles R. Cawthon, Infantry, *is with Allied Forces, Central Europe. He has contributed several articles to this magazine.*

FOUR-DIVISION STRIKING FORCE

CONTINUED FROM PAGE 22

Secondly, appropriations sufficient for the manpower, weapons and equipment must be provided.

Overall strength of the active Army must be increased to at least one million men (Objective No. 1) in order to insure that these four divisions are adequately manned and that shortages of manpower elsewhere will not require the Department of the Army to interrupt their training and destroy their effectiveness by calling upon them to perform duties incompatible with their status as alert forces or to provide drafts of manpower for other units. Such interruptions would destroy their effectiveness and indeed their reason for being.

These divisions must be armed with the latest tested weapons and enough of them to meet all contemplated demands. So too with their equipment. Finally this force—or a good portion of it—must have strategic air mobility, that is, air transport quickly available and in sufficient quantity to fly at least two of these divisions and their combat weapons and equipment to any danger spot in the world. The other two could move on fast surface ships or be air-lifted after the first two. Actually it can be said that the key phrase in Objective No. 2 is "highly mobile." As of today the aircraft that could give it this mobility are in insufficient supply. This is critical and needs to be corrected. This is AUSA's third objective and a full examination of the problem will appear in an early issue.

Is such a striking force really needed?

The answer is that if such a force had existed in 1950, the course of the Korean conflict would have been much shorter and more favorable to the United States and the free world. If one ready division could have been airlifted to Korea immediately upon the outbreak of the conflict, with another following shortly thereafter, while two others embarked on fast surface ships, it would have been a different war.

As of today consider the reports from Manila during the recent SEATO conference. American reporters on the scene wrote that the delegates to the conference agreed that the danger of Communist military aggression is still serious. In Indonesia, where civil war raged between an at best neutralist government and antiCommunist rebels, the dangers of overt Communist intervention posed grave problems. Korea, Formosa and Vietnam are continuing danger spots. As Mr. Tillman Durdin wrote in "The New York Times" from Manila: "The rival components of these countries are still in a stage of arrested civil war that constantly threatens to be renewed. The Communists work constantly at political penetration and military pressure. The antiCommunists are at this stage relatively strong politically and militarily but there always is the worry that any show of instability and weakness could be the beginning of disaster."

The key phrase is the final one: "any show of instability and weakness could be the beginning of disaster." This is true not only in Korea, Formosa and Vietnam but in other parts of the Far East, in the Middle East, and wherever else the Communists are at work. The best military support this nation can provide these small anti-Communist nations is a "four-division, full strength highly mobile striking force within the strategic reserve of the active Army." The meaning and capabilities of such a force would be readily understandable by nonCommunists, Communists and neutralists.

Indecision

Triumphant in the West in 1940, Hitler's Reich went on, not to greater victories, but to crushing defeat. Why?

BRIGADIER GENERAL TELFORD TAYLOR

AFTER the fall of France, the Germans had their choice of two basic strategies to defeat Britain and win the war. One was to seek a speedy victory by direct assault—naval and aerial attacks on shipping, Luftwaffe bombardment of the British homeland, and amphibious operations to establish a bridgehead base for an invasion. The other was by force and threats to expand Germany's economic and military basis in Europe, North Africa, and if possible the Middle East, aiming for victory or at worst a stalemate in a long war with Britain and whatever other powers might join with her.

These two alternatives were clearly enough set forth by [Alfred] Jodl, on June 30 [in a memorandum on "the further conduct of the war against England"]. "If political means do not attain the goal," he wrote, "then English resistance must be broken either a) by an attack against the English motherland, or b) by broadening the war to the periphery." The first course of action might be pursued by a sea and air economic blockade together with an assault against the Royal Air Force and the island's industrial resources, by a terror attack on population centers, or by an invasion and occupation. This last method could be attempted only when British air power had been destroyed—perhaps by the end of August or early September. The second avenue to victory—a war against the British Empire—could be conducted through countries that would be glad to see the downfall of English world power, such as Italy, Spain, Russia, and perhaps the Arab lands.

The two alternatives posed by Jodl were not absolutely exclusive of each other. If the first was tried and failed, the second would be prejudiced but by no means foreclosed. Furthermore, the long-term indirect approach admitted of very wide variations in time, place, and scope.

Within this range of flexibility, however, the question "What now?" ought to have been answered, at the latest in June, with a vigorous program of military action shaped and concentrated in pursuance of one strategy or the other. Instead, the leaders of the Wehrmacht fiddled around for a full month with secondary matters of military administration, and plans for victory parades. Keitel opined that, with the defeat of France, "the task of the Army in this war will be essentially fulfilled," and that the Navy and Luftwaffe should take over chief responsibility for further hostilities against England. Two weeks after Dunkirk, OKW had done no preparatory work for an invasion. The mechanics of demobilizing part of the Army moved to the forefront of the German military mind.

Hitler himself dawdled in the Black Forest and then went to Berlin to prepare his combination peace offer and victory speech at the Kroll Opera House. Perhaps he imagined that he was allowing the British time to adjust their outlook in the directon of peace, but in fact he was giving them an invaluable breathing spell in which to organize and improvise their defenses against invasion. Thus still another strategic error was added to those committed during the Battle of France.

It is a never-ending post mortem to speculate on whether or not *Sea Lion* (the German cover-name for the projected invasion of Britain) would have succeeded had it been attempted. In any event, it was not a project of desperation. The Army generals, by no means reckless in their appraisals, were prepared to undertake it. Had it succeeded and the British government been driven out of the islands, perhaps, as Churchill vowed, "our Empire beyond the seas . . . would carry on the struggle until, in God's good time, the New World, with all its power and might, steps forth to the rescue and the liberation of the Old." But it may be just as well that the New World was not put to so terrible a test and, if it had been, "God's good time" would certainly not have been brief.

From Hitler's standpoint, the advantages to be gained from a successful invasion of England far outweighed the penalties of failure, painful and embarrassing as they would have been. If *Sea Lion* had failed at an early stage, German losses would hardly have exceeded what the Wehr-

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macht had been prepared to face in the Battle of France. Since these were in fact so light, Germany had an abundant reserve of trained ground forces, and the Army would have been much less harmed by the sacrifice of a dozen divisions out of 150 than the Luftwaffe was by the losses actually sustained in the Battle of Britain. Furthermore, *Sea Lion* was a venture wholly compatible with the concept of a short war, which certainly could not be said of the Russian venture on which Hitler embarked a year later. And once in command of the British Isles as well as most of Europe, the Axis position would have been so strong that the prospects of its overturn would have appeared remote and desperate.

If, despite these considerations, *Sea Lion* were to be discarded as unpromising of success, there remained the second basic strategy. Hitler and Mussolini could have embarked on a serious and sustained program to gird the Axis for a long war. To enlarge their own resources and pinch the British "life line of Empire," the Axis forces could have embarked on a campaign of conquest in the Balkans, North Africa, and the Middle East. It is altogether possible that such a drive, had it been settled on as the Wehrmacht's prime mission, could not have been stopped much short of Bagdad, the old symbol of German imperial aspirations in the Middle East.

This would scarcely have been to Russia's liking, but even so Soviet intervention would not have been too great a hazard. Russian offensive capabilities were not then formidable, as the Finnish War had shown. A Russian attack on Germany would almost certainly have been unsuccessful and extremely dangerous to the continuance of the Soviet regime, and Germany would have emerged in a very advantageous position. For that very reason such a development was improbable. The denizens of the Kremlin might well have thought it more prudent to throw in their lot with the Axis than with a British Empire so badly mauled.

However that might have turned out, victory in the West opened up to Hitler the prospect—inviting, dangerous, but by no means remote—of extending Germany's dominion over all of southeastern Europe and the Middle East, with Italy as a junior partner in empire. And such a dominion, if not of millennial stability, could have been shattered only after long years of wasting struggle. With the advent of the atomic bomb the Old World and much of the New might well have been a shambles before the issue was resolved.

Third Alternative: *Barbarossa*

If to attack Britain either across the Channel or in Mediterranean was deemed too hazardous in view of Germany's limited naval power, there still remained another alternative. There were, after all, only two nations—Russia and the United States—sufficiently powerful so that Britain might hope for decisive results from their entry into the war against Germany. If British hopes for ultimate victory depended on eventual alliance with one or both of them, and if Britain herself could not be assaulted, then the solution must be to destroy her prospects of alliance by eliminating her prospective allies! And if the United States lay out of reach across the Atlantic, so much the worse for adjacent Russia, where the all-conquering German

Never did the thousand-year Reich seem more certain than when the Führer received word of the great victories of the spring of 1940. But a victory dance and victory oratory were insufficient substitutes for firm strategic decisions and, in a sense, the fate of the Reich was sealed during that summer of indecision

Army could again be brought into play.

In fact, this was precisely the way Hitler viewed the strategic situation as soon as it became apparent that the British would fight on despite the fall of France. As early as 13 July 1940, Hitler and the top generals in conference at the Berghof agreed that Britain's "persistent unwillingness to make peace" was only to be explained by her hope of winning Rusia to her side. On 31 July 1940, in the same place and circumstances, Hitler put his thesis very explicitly, with the added thought that the destruction of Russia would likewise eliminate the United States as a potential ally of Britain:

> Britain's hope lies in Russia and the United States. If Russia drops out of the picture, America, too, is lost for Britain, because elimination of Russia would tremendously increase Japan's power in the Far East. . . .
>
> With Russia smashed, Britain's last hope would be shattered. Germany will then be master of Europe and the Balkans.
>
> Decision: Russia's destruction must therefore be made a part of this struggle. Spring '41.
>
> *The sooner Russia is crushed the better.* Attack achieves its purpose only if Russian State can be shattered to its roots with one blow. . . .

Despite this conclusive language, the decision to invade Russia was not finally reached until some months later. There was a flaw in Hitler's logic which did not escape the attention of Raeder and others who opposed the Russian campaign, and of which, no doubt, Hitler himself was aware. To be sure, the *defeat* of Russia might well have the decisive consequences which he envisaged. But to *attack* Russia was to fulfill the very hope on which Britain was relying, by making Russia willy-nilly Britain's ally.

Furthermore, the immediate result would be a two-front war, against the stupidity of which Hitler had often inveighed. It is hardly surprising, therefore, that he did not finally commit Germany to the Russian venture at once, nor, indeed, until after the Battle of Britain, the abortive preparations for *Sea Lion*, the ill-considered Italian assault on Greece, unsuccessful efforts to persuade Franco to join in capturing Gibraltar, and the emergence of North Africa as a crucial theater of combat with the British.

In July 1940 Hitler and the generals did not, of course, foresee these many developments in the course of the war during the balance of the year. And while these remarkable events were unfolding, the military leaders of the Third Reich were constantly conferring, debating, and preparing memoranda weighing the comparative merits of the possible courses of action that the situation presented.

The invasion of the Soviet Union might have been envisaged as a component or variant of the indirect, long-term strategy of expanding the economic and geographical basis of the Axis. Indeed, the Russian campaign might have had a favorable outcome for Germany had it been geared to sound objectives and coupled with an occupation policy designed to cultivate anti-Bolshevist and Ukrainian separatist sentiments and exploit, without destroying, the resources of the eastern lands overrun by the Wehrmacht.

But that was not at all the way Hitler conceived of *Barbarossa*, as the plan of attack on Russia was to be called. As the records of the July conferences at the Berghof made plain, Hitler regarded *Barbarossa* as an avenue to an early victory over Britain. And in that frame of mind it was to be actually undertaken. The German domestic economy remained under only light restrictions throughout 1940 and 1941, no effort was made to remedy the strategic shortcomings of the Luftwaffe, and the German troops eventually went into Russia with neither the clothing nor the equipment that would be necessary if the fighting lasted into the winter. The Germans' treatment of the Russian population in the occupied areas was both stupid and atrocious. And thus, with full knowledge of Napoleon's experience, and with his own repeated condemnations of a two-front war staring him in the face, Hitler in July of 1940 imagined and planned to bring about Britain's speedy downfall by invading Russia in 1941!

And what about the views of the German generals and admirals in that crucial summer of 1940? There was no unanimity. Raeder strongly urged a campaign in the Mediterranean, and Brauchitsch favored the capture of Gibraltar. By and large, the Army generals were optimistic about the prospects of invading Britain, while the admirals were understandably reluctant. Goering puffed the ability of his Luftwaffe to beat the English to their knees. OKW was quite unable to reconcile or synthesize the conflicting counsels of the three services. The upshot was that the leaders of the Wehrmacht never laid before Hitler a plan of action which commanded their general support.

Victorious But Planless

Thus the Germans staggered, victorious in battle but strategically planless, into this new phase of the war. As a perceptive commentator on those times has written: "The defeat of France completed the easy period of Hitler's war. Thereafter, the position became totally different, the situation far more complex. The problems facing Germany, no less than Great Britain, were problems of a different order from, of vaster dimensions than, those which had been met before. The new situation presented Hitler with almost limitless possibilities. But it also brought him up against hard facts. . . . In comparison with the powers of strategy now demanded, he had so far succeeded by something like rule of thumb."

Difficult and complex alternatives confronted the leaders of the Wehrmacht in June of 1940. Their failure was not that they made wrong choices; even Great Captains make mistakes. The true measure of the Germans' insufficiency as conquerors was that they did not choose decisively, but tardily and inconclusively.

After the Battle of France the same sort of errors that had been made during its course were repeated again and again. Forces were diverted to secondary objectives at the expense of prime ones; too many things were attempted, while nothing was undertaken with sufficient speed and determination.

For example, the Battle of Britain was launched in the hope of knocking out Britain from the air, although the Luftwaffe had been deliberately designed for tactical rather than strategic use. It should never have been undertaken at all except in conjunction with a firmly intended and carefully co-ordinated amphibious assault. The result was that the Luftwaffe was bled white to no purpose. Then it was saddled with new and extensive commitments in the Mediterranean and North Africa at a time when *Barbarossa* was already in an advanced stage of preparation. And just as *Weserübung* had delayed the major offensive in

the West, so the secondary ventures in Yugoslavia and Greece required a costly postponement of the invasion of Russia. Thus the Wehrmacht embarked upon a series of ventures which, so far from comprising a purposeful strategic pattern, were at cross purposes one with another.

And so the leadership of the Wehrmacht let slip the great opportunity that was theirs in the late spring of 1940. They did not settle on either or both of the basic strategic courses that were open to them. They did not press home the direct assault on Britain; neither did they gird themselves for a long war. The Luftwaffe delivered a heavy but costly and indecisive blow against England. The U-boat arm was strengthened, but insufficiently, and the Luftwaffe hardly at all. Rommel was sent to North Africa, where he scored brilliantly, but he was never given enough strength to turn his desert victories into solid strategic gains. Russia was invaded too late, and on the basis of false strategic and logistical premises.

All these things, ultimately fatal to the Wehrmacht and the Third Reich, were the outcome of the failure of basic planning and decision-making after the victory in the West. And that is why the summer of 1940 was, in a strategic sense, the turning point of the war, little though it seemed such at the time. The wave of conquest broke on the shoals of delay and indecision.

What accounted for this failure? Its roots lay deep in Germany's military and political history, beyond the range of full exploration here. Even within the limits of this work, however, the principal causes of the failure are readily discernible.

The crucial strategic decisions were the responsibility of Hitler as Führer of the Reich and Supreme Commander of the Wehrmacht, and of the military leaders as his professional advisers and field commanders. In immediate terms the failure of German grand strategy was due to Hitler's deficiencies of temperament and education, and the narrow outlook of the German officer corps.

Amateur at *Grosspolitik*

At the moment of decision in 1940, it is probable that the first factor was the more important. To be sure, there was no officer of great strategic gifts at Hitler's elbow. Neither was there any such in the entourages of Frederick the Great or Napoleon. In fact, Hitler was well served tactically by his generals and admirals, and the erratic, stumbling course of German strategy after the Battle of France is directly traceable to his own defects of mind and character.

Hitler was, after all, a demagogue and politician by experience and inclination. In those terms he was a man of extraordinary gifts, but these did not include a Bismarckian mastery of *Grosspolitik*. He had a deep interest in military affairs, as in architecture, but in both fields he was very much an amateur. Fond of poring over detailed information on weapons and order of battle, and phenomenally retentive, Hitler reveled in military discussion and often scored brilliantly. His curiosity and uninhibited approach to military problems sometimes resulted in valuable contributions at the planning sessions.

However, the Führer's phenomenal grasp of military details was insufficient for the solution of strategic problems. Here he was badly handicapped by lack of information and faulty judgment. Hitler was a bit like Sherlock Holmes, who, according to Dr. Watson, was an expert on the varieties of tobacco ash but totally ignorant of the Copernican system. He was in most respects exceedingly provincial. His knowledge of world affairs was superficial, and his mental pictures of foreign lands and peoples were a gallery of stereotypes, titled with clichés. He was erratic and sloppy in his working habits, and these traits reflected a profound instability which precluded steadfastness of purpose and clarity of vision. He wanted to appear hard, cold, and ruthless, and his actions often were governed by that aim. Underneath the overlay, however, Hitler was nervous, indecisive, impulsive, and lacking in self-control.

In the dramatic and critical setting of June 1940, the Führer floundered. Sinister and powerful figure that he was, Hitler was ill-equipped for the Great Captain's role which he now essayed on the stage of history. This was just as well for the world. If patience, tenacity, and strategic vision had been numbered among Hitler's otherwise remarkable and unlovely attributes, the war might have had a far different outcome.

There was, it now appears, a strong ingredient of infantilism in Hitler's make-up. This was why he was never able to choose among the competing strategic alternatives. Like a child, he could not bear to discard any attractive object; no more could he bring himself to give up ground once gained, in the later years of the war.

Insecure and spoiled by adulation and rapid success, Hitler was always shopping at the bargain counter. He hoped to defeat Britain with the Luftwaffe alone, without risking the Army. He tried to master the Mediterranean littoral with the Luftwaffe and a few army corps but drew back from any major commitment. Finally, he undertook to conquer the Russian sub-continent on the wishful assumption that total victory could be achieved within a few months and without rudimentary precautions against the contingency of prolonged resistance.

And so the leaders of the Wehrmacht, like all Germans, paid dearly for the folly of laying their fate in the hands of a tyrant who was neither statesman nor captain. For all his mnemonic and forensic gifts, Hitler was unfitted and unable to meet the epochal challenge of the situation which he and the generals now confronted.

Failures of the Generals and Admirals

If Hitler bore the main responsibility for leading the Reich to ruin, the generals and admirals must nevertheless share the blame. Much has been written in praise of the sheer professionalism of the German officer corps, and of its rigorous divorcement from politics. In the United States, ever since the Franco-Prussian War the German military system has attracted admiration and inspired emulation in military circles. Yet the collapse of German military professionalism under the pressures of Naziism and the generals' failure to grasp the strategic problems that Germany confronted in 1940 bespeak grave deficiencies in German military practice.

Between 1933 and 1940, Hitler spent many hours in military company. If the leaders of the Wehrmacht had been men of broad strategic vision, some of their outlook and their wisdom might have rubbed off on the Führer.

Hitler was often a poor listener and he was usually a difficult and arrogant pupil, but his mind was highly absorbent. If he came ill-equipped to the great strategic crossroads of 1940, that was partly because he had had small opportunity to learn from generals who had so little to impart.

Professional military men do well to eschew partisan politics. But it does not follow that they should neglect the study of political matters, especially those that are closely related to the military field. "Aim to be yourselves statesmen as well as seamen," Admiral Mahan counseled his brother officers.

Perhaps that is an overstatement, and certainly it is an oversimplification. But if, as Clausewitz teaches, war is a continuation of state policy, and strategy is "the use of combats" to attain the state's objectives, then strategy must be a mixture of military and political elements.

The subject matter of strategy, therefore, is as broad as the state's field of foreign policy and range of objectives. Under Hitler, the Third Reich essayed a role as a world power for which the officer corps was almost as poorly prepared as the Führer himself.

These shortcomings surely did not stem from a lack of doctrinal background. "Once the great victory is gained," wrote Clausewitz, "there should be no talk of rest, of getting breath, or of consolidating, etc., but only of pursuit, of fresh blows whenever necessary, of the capture of the enemy's capital, of attacking . . . whatever else appears to be the point of support of the hostile state." Such lessons were repeated from generation to generation of general staff officers.

Shortly before World War II Colonel Hermann Foertsch, a senior instructor at the famous *Kreigsakademie*, published *The Art of War Today and Tomorrow*, a widely read work replete with extracts from Gneisenau, Clausewitze, Moltke, and other demigods of the officer corps. Therein Gneisenau was extolled as a general who never rested but "drove on and on" in pursuance of his maxim that "the destruction of the enemy is always the main object." So, too, Foertsch quoted Gneisenau's apothegm "Strategy is the science of making use of space and time," and his observation "I am more jealous of the latter than of the former. We can always recover ground, but never lost time."

Had France been the principal enemy, it could be said that the Wehrmacht followed these teachings to the letter in 1940. But Hitler and the generals realized full well that Britain was the main foe. The classic German military writings did not guide them toward a strategy suitable to the situation they confronted, and of that there is no better illustration than this very book by Foertsch. Written after one world war and on the eve of a second, at a time when the close interrelation of the land, sea, and air arms was already taken for granted in military science, Foertsch's work is avowedly limited to land warfare. Why? Because "it would not be proper for the author, as an officer of the Army, to also consider questions of naval and aerial warfare." In line with this extraordinary notion of "propriety" in a work devoted to the "art of war," Foertsch treated the air arm purely as a tactical adjunct of the Army. The Navy he hardly mentioned, and he refrained from any discussion of amphibious operations or of the tactical or strategic problems that would be faced by Germany or any other nation at war with a transmarine foe.

The limitations of Foertsch's book reflected the narrow range of German military thinking and the compartmentalization of German military organization and training. There was almost no inclination or opportunity for interservice staff training, and little attention was given to the strategy and tactics of global warfare and combined operations.

Educational Deficiencies in Strategy and Military History

Especially revealing is the indifference or outright hostility encountered by the few officers who grasped the need and sought to fill the gap. Upon his retirement in 1927, General Walter Reinhardt (commander of the Army from 1919 to 1920 and thereafter one of the senior troop commanders), with the support of the Minister of Defense, ex-General Wilhelm Groener, conducted a one-year course for twelve selected officers (ten Army and two Navy) in which lectures at the University of Berlin and foreign travel were mixed with special studies in military history and strategy. After Reinhardt's death the course was continued under Lieutenant General Edmund Wachenfeld, Chief of Staff of the Berlin Group Command, but it was discontinued in 1933.

In 1935, chiefly on Blomberg's initiative, inter-service staff training was for the first and only time made a formal part of the military system. A *Wehrmachtakademie* was established in Berlin, at which ten officers (six Army and two each Navy and Air Force) were immersed in the broad problems of war leadership under the direction of the able and articulate General Wilhelm Adam.

But the *Wehrmachtakademie* lasted less than three years, and was abolished in 1938 when Adam was appointed army group commander on the western frontier. Despite his prestige and seniority, the academy was regarded with indifference by the Army and the Foreign Office, while the Navy and Luftwaffe were suspicious and hostile, as they were to any real or fancied threat to their autonomy and freedom from domination by the Army. All three services were opposed to the concept of a "Wehrmacht General Staff," and the Army General Staff was in a state of constant feud with Blomberg and his subordinates in the Ministry of War, of which the *Wehrmachtakademie* was part.

When the German generals spoke of military strategy, they envisaged the European subcontinent as the field of action. With characteristic German ingenuity and thoroughness, they devised a military machine and a tactical system superior to anything else in their range of observation, while the French generals slumbered in the past. But in strategic and political terms, the German military mind made no such strides. In everything but tactical science and skill in the field, the German officer corps, like the French, was circumscribed by old conceptions. Its leaders had learned little or nothing since World War I, in which they had all fought.

The personal attributes of Hitler and the leading officers, however, furnish the material for only a partial and superficial diagnosis of the German failure of strategy. Even if Hitler had been better informed and the officer corps more enlightened, the course of events might not have been much different. Dictator and generals were part of the Third Reich, and the Wehrmacht itself was the fruit of the relation between the officer corps and the

Nazi party—between the sword and the swastika. And it is in that relation that deeper causes of the strategic failure may be perceived.

Surveying the first phase of World War II—from the conquest of Poland to the fall of France and Hitler's peace overtures on 19 July 1940—perhaps its most salient feature is the enormous gap in quality between German tactics and German strategy. From the sphere of field tactics to the higher reaches of grand strategy, there was a constant deterioration.

Superb Tactics Tied to Abysmal Strategy

On land and sea and in the air, the tactical handling of the German forces in Norway, the Low Countries, and France was superb. On a large scale, no such level of performance had previously been achieved in the twentieth century. Not only in the field and in actual combat but in the organizational and planning work of the staffs, the Wehrmacht's accomplishments were extraordinary. The meticulously timed naval assault at ports scattered from end to end of the long Norwegian coast, the novel and imaginative conjunction of airborne and armored operations in Holland, the machinelike redeployment of the Army for the Somme-Aisne offensive—example after example of technical military mastery recurs during the ten weeks of the campaign in western Europe.

At the higher level of inter-service plans and operations, where tactics and strategy often overlap, the Wehrmacht's achievements were often remarkable, but serious shortcomings were likewise apparent. Army-Luftwaffe co-operation is a good example. At the field level, Geissler and Falkenhorst in Norway, or Guderian, Stutterheim, and Loerzer at Sedan, were able to team their ground and air forces, and the results were sensationally successful. But between Goering and Brauchitsch there was no trust or common ground, and this circumstance gave rise to disastrous consequences such as the "stop-order" before Dunkirk.

In the uppermost range of grand strategy, the Germans' record was abysmal. Vitally important problems were overlooked or nonchalantly disposed of on the basis of personal penchants. One need only mention the short wind and imbalance of the Luftwaffe; the refusal to mobilize the German economy for a long war; the failure to evaluate the potential gains and losses from *Weserübung* in relation to the war as a whole; the purblind occupation policies; the easing of pressure on the British at the moment of their greatest weakness. It is hard to believe that such a series of oversights and blunders could have been made in the land of Clausewitz, whose most basic teachings were thus flouted. In the realm of ultimate strategy—waging total war to achieve a victor's peace—the leaders of the Third Reich were miserably incompetent.

Such a contrast between technical military proficiency and strategic incapacity can hardly be explained by the characteristics of individuals, no matter how highly placed. Rather, it is significant of basic flaws in the structure of the Third Reich, of which the Wehrmacht was a part.

Running all through the story of these plans and campaigns, there is a strong current of tension, sporadically erupting into open conflict, in the highest circles of the Reich. Even among the Army generals this tension may be felt between the old guard—the Rundstedts, Leebs, and Brauchitsches—and the new school—the Guderians, Mansteins, and Rommels.

Within the Wehrmacht as a whole, the stresses were more numerous and deeper. The strain between Brauchitsch and Goering for example, was not merely a matter of personal dislike. It had history that began in February 1938, when Hitler and Goering extracted commitments from Brauchitsch at the time of his appointment as Commander-in-Chief of the Army. Because of its traditional prestige, the officer corps appeared to the Nazis not as an instrument for defense of the Reich but as a rival in the struggle for power to govern the Reich's destinies. When Dunkirk loomed, it was more important to Goering that the Luftwaffe, rather than the Army, get the credit for the final victory, than that the British be struck with the greatest possible force.

Why were the German occupation policies so suicidal from a strategic standpoint? It is easy to answer that those policies were never sufficiently considered in strategic terms, but why were they not? The reason was that those directly concerned did not have the interests of the Reich primarily at heart. Himmler and his henchmen wanted to enlarge the scope and power of the SS "state within a state" and put their racial theories to the test of practice. The Krupps and Flicks and Farben directors were more concerned with the expansion of their industrial empires than with the development of a sound national policy. Some of the Army generals like Stülpnagel saw the occupation from a less selfish point of view, but they were unable to make their views prevail, partly because the Army's influence in the Reich's affairs had declined, and also because most of the senior officers were insensitive to the strategic implications of occupation policy or preferred not to become involved in such matters.

Of course, inter-service rivalries and private self-seeking at the expense of the national interest in wartime are not peculiar to the Third Reich. In the atmosphere of Naziism, however, these diseases of the body politic seem to have run wild, like an uncontrollable cancer. Undeniably, there was much deep and genuine fervor among the German youth that grew to manhood in Hitler's time, and the soldiers, sailors, and airmen of the Wehrmacht fought as bravely as those of the other countries. But standards of leadership in the Third Reich—political, civil, and military—seem to have been distorted beyond redemption even under the patriotic stimulus of war, by the evil pressures of the Nazi dictatorship.

It is no wonder, therefore, that Hitler and the generals were helpless to cope with the strategic riddles of 1940. Their failure was inevitable, for the Third Reich was not the potent and efficient engine of conquest that it was generally thought to be. And by a strange but appropriate irony, it was especially in the sphere of strategic decision-making, where by common supposition dictatorships are more swift, flexible, and cold-blooded than democracies, that the Reich was found wanting.

So the fruits of conquest in the West rotted in the victors' hands. For all its tactical brilliance, the Battle of France spelled no final victory for the Germans. After the dust of battle had settled and the promotions and decorations were distributed, there still remained the great riddle: how to end the war. What now?

Irons in the Fire

Space Speedometer

A three-dimensional "space speedometer" developed by Sperry Gyroscope Company has reached the manufacture stage. The new device is a 1.5-pound ultra-sensitive accelerometer which, when teamed with gyros on various axes, microscopically detects and measures exact velocity in any direction of spherical space and provides a jam-proof inertial guidance system. It is capable of detecting a change of as little as 2 seconds of an arc—less than one-10,000th of the space between one-minute marks on a standard wrist watch.

The "speedometer" is suitable for use in winged missiles and aircraft through the high supersonic or low hypersonic ranges; and for long undersea voyages of many days or weeks without star-sight corrections or radio aids, yet exact in depth and direction to establish precise firing points for ballistic missiles such as Polaris.

Sperry's space speedometer

On-the-Spot Ingenuity

The cost of shipping seventy-three M48 tank turrets all the way to Alabama for a small modification bothered Mr. Atwell S. Deane, a civilian employee of the Post Armament Shop at Fort Bragg. So he designed a gadget that would cut the necessary holes in the tough tank turret armor. The gadget was a graduated cutting head for use on a large lathe in the Armament Shop's machine tool section, and it proved so effective that authorities at the Ordnance Depot, Anniston, Ala., adopted it. By taking it from post to post, ordnance teams are now able to modify the tanks wherever they are stationed and at far less cost.

Battlefield Navigator

A beyond-line-of-sight navigational system accurate to within 20 feet on or above a battleground has been developed for land and air units of the field army.

Bendix Aviation Corp. has adapted its Bendix-Decca navigation system, originally built for control of air and marine traffic, to monitor the tactical operations of infantry, artillery, armor, missiles and aircraft in modern warfare. The system would provide an army field headquarters with an instantaneous "fix" on all its fighting units, and tank commanders, troop vehicles, helicopter pilots and artillery spotters would be provided with a minute-by-minute "road map." Utilizing pairs of "master" and "slave" sending stations transmitting wave patterns occupying precisely known and stable geographic positions to form accurate position lines or "electronic highways," the system would visually trace on standard army maps the location, course and progress of all of a commander's units.

Signal Frequency Determinator

A simple, precise and reliable instrument for determining the exact frequency of transmitted signals has been designed by the Allen B. DuMont Laboratories, Inc. It is a frequency marker generator with a range of from 2,000 to 4,000 mc. The instrument has applications wherever more precise frequency determination is required than can be obtained with a frequency meter, particularly in such areas as counter-measures, communications systems, and telemetering. It is also useful as a truly accurate reference for frequency calibration of transmitters and as the actual oscillator in microwave transmitters to insure correct frequency transmissions.

New Sun Compass

A new universal sun compass, simple in design, lightweight and compact, has been developed by the Corps of Engineers Research and Development Laboratories. The compass can be used for land navigation at all north or south latitudes and with many navigational stars. A clock mechanism provides for mechanical tracking of the sun or stars. Sun compasses presently in use are limited in daytime operation from the equator to 45 degrees north or south latitudes and can be used only with the North Star. The new compass is ruggedly built for long life in rough military use and weighs about nine pounds minus its weatherproof carrying case. Specialist training is unnecessary. Training in advanced map reading, supplemented by two hours of instruction in star identification and one hour of actual work with the compass will make a competent operator of the average soldier.

Fairchild Rifle In Production

The Fairchild Armalite AR-10 automatic rifle is now in production in The Netherlands, at the Amsterdam plant of Artillerie-Inrichtingen. Manufactured by the Dutch company under an agreement with Fairchild, the weapon has been evaluated by the governments of several NATO countries and has been ordered in limited quantities for field and troop tests. The AR-10, which fires the NATO 7.62mm cartridge, weighs less than seven pounds. It is one of a series of lightweight weapons developed by Fairchild, utilizing light metals and plastics.

Richard S. Boutelle, President of Fairchild, receives the first production AR-10 from President F. G. Jungeling of Artillerie-Inrichtingen

Switch to Diesels

A new diesel type compression ignition engine developed by engineers of the Ordnance Tank Automotive Command and Continental Motors Corp. will supplant conventional gasoline engines in nearly all Army combat vehicles by 1962. The new engine's use of a fuel injection system and compression ignition will eliminate the electrical system and will provide both a 40 per cent decrease in fuel consumption and the ability to use a variety of fuels. The initial engines will use only diesel fuel, but new developments foreseen will allow the use of any fuel from diesel or jet fuels to high-octane gasoline.

THE MONTH'S BOOKS

Our Basic Objectives

RUSSIA, THE ATOM, AND THE WEST
By George F. Kennan
Harper & Brothers, 1958
116 Pages; $2.50

PRESCRIPTION FOR SURVIVAL
Brock Chisholm
Columbia University Press, 1958
92 Pages; $2.50

Reviewed by
DR. RAYMOND L. GARTHOFF, *author of several articles in* ARMY *and of* Soviet Military Doctrine, *whose* Soviet Strategy in the Nuclear Age *will be published soon.*

It is rare to find two volumes so concise, well written and inexpensive. But more important, it is indeed rare to find two books so deserving of reviewers' laudatory expressions: stimulating and provocative. Yet these books each, in complementary ways, offer something that is indeed insistently required: thought about our basic objectives over the long run.

Kennan's book, originally presented in the Reith Lectures over BBC, has acquired some notoriety as a call for "disengagement" in central Europe, for mutual withdrawal of Soviet and American forces from Germany. But leaving aside this dangerous nettle, clearly what is most valuable in his book is his reflection on basic American aspirations and objectives. Kennan himself says: "Least of all would I think of recommending these reflections to governments as a finished program of action." I would take issue with his strong belief that military deterrence has been reached in such degree that we need give little further attention to its preservation. He is probably right in considering the probabilities of war to be slight. But while continuing to devote attention to the preservation of our deterrent retaliatory and defensive strength, we should indeed look toward something *additional* (if not, as he would have it, something *instead*). Kennan's plea is for attention above all to *ourselves*, to constantly improving our own society in the free world.

This brings us to Dr. Chisholm's remarkable prescription for survival. He tends to ignore the problem of transition from our present military-political concerns to those of fundamental objectives, which is Kennan's focus, and to *begin* with radical disregard for international political conflict. Chisholm sees us as if from another planet—and he sees a parallel in mankind today to the brontosaurus of the era before the Ice Age. As he says, "I think it is essential for us to remind ourselves that man has no permanent mortgage on this little earth." Our survival is related directly and simply to making "adequate adjustment to a changing environment." Viewing the thermonuclear age from this perspective, he literally ties our survival as a species to a mighty (the pessimist is tempted to say "superhuman") effort to overcome traditional political and ideological conflicts.

Chisholm's prescription is to orient ourselves and our efforts to bettering the world *at the cost* of our present standard of living. As a Canadian (and Vice President of the World Association of World Federalists) he posits the problem in terms of the responsibility of the unfairly well-off North Americans to help the rest of the world (and thereby themselves) to "a state of complete physical, mental, and social well-being." Working on the political plane, this means seeking a *modus vivendi* with the Soviet Union in order to avoid a cataclysmic clash and to permit steps toward true world unity. "To many," says Chisholm, "this is the same thing as subversion. . . . Actually, it is an expanded loyalty, a more important loyalty, a far more valid loyalty—a loyalty to the welfare of the peoples of the world."

One may not agree with all the views and prescriptions of these two idealistic realists. This reviewer certainly does not. But in the particular case it is more worth reading these two truly provocative and stimulating works than it is to read ten times two works with which one already agrees.

Confederate Casualties

DOCTORS IN GRAY: The Confederate Medical Service
By H. H. Cunningham
Louisiana State University Press, 1958
339 Pages; Illustrated; Index; $6.00

Reviewed by
LT. COL. DOUGLAS LINDSEY, *Medical Corps, who has been a combat surgeon, and is conducting research in the problems of saving lives on the battlefield.*

As a military medical man, I have long been looking for this volume to appear. It was inevitable that it would. As the note on the jacket says: "A sick soldier is of little military value. This means that the overall history of medicine in the army constitutes a major chapter in the history of any war." The Civil War was certainly a significant one. Until this book appeared, the history of the medical service on the Confederate side had not been covered in both comprehensive and accessible form.

This is a scholarly work. The chapters often end with formal "conclusions," as though they were drafted as staff estimates. Pages are liberally salted with footnotes, mostly pertinent, but sometimes trivial or tangential. The bibliography runs to 31 pages, the appendices to 17 more. The book is not as engrossing as a salacious novel, but neither does it read like an encyclopedia.

Professor Cunningham is a careful and cautious author. Errors are few, and in general of minor import. Fragmentary statistics are left to stand as fragments, and are not used as insecure bases for complex inferences. The author's reserve is illustrated by his comment on a diary entry in which a soldier described eating fried rat for breakfast: "Deficient rations would . . . appear to be illustrated. . . ."

Professor Cunningham notes that "Subsequent advances in medical science [have] made the theories and practices of Civil War medical men obsolescent. . . ." The choice of "obsolescent" over "obsolete" might appear to be undue caution, but in truth it is not. There is much in the Civil War medical scene which is still familiar. Measles is still a hazard among recruits, and still involves "measures of sanitary supervision rather than . . . pharmaceutical formulae." The Confederate aid man carried a kit containing lint, bandages, sponges, tourniquets, four splints, and a pint bottle of alcoholic stimulants. The contents of the current kit are the same, except that the splints and the pint bottle are missing, and the tourniquet (in my opinion) does not work. The Confederates were plagued with gangrene, and tried a number of apparently bizarre methods of treatment; at least two of these methods are under formal medical research at this moment.

The photograph of Chimborazo hospital in Richmond—eight thousand beds in frame ward buildings—bears a striking resemblance to the cantonment hospitals of World War II. Functionally, it compares with our present class II in-

Selected Check List of the Month's Books

This run-down of some of the books received for review during the month preceding our deadline is to give our readers who like to follow current literature a monthly check list of the most important, useful and potentially popular books. Full reviews of some of these books may appear in this or subsequent issues. Any of these titles may be purchased through the Combat Forces Book Service.

AN ATLAS OF WORLD AFFAIRS. By Andrew Boyd. Frederick A. Praeger, 1958. 159 Pages; Index; $3.00. More than seventy new maps focus on the most important territorial disputes, alliances, political trends and economic factors in the modern world. Brief text accompanies each map, to explain the background and summarize the situation.

THE BATTLE OF CASSINO. By Fred Majdalany. Ballantine Books, 1958. 236 Pages; Illustrated; Maps; Paper, $.50, Cloth $4.00. Reviewed in ARMY for October 1957. The author worked three years to write this account of the battle that was fought for almost five months and which gave rise to controversies that echo still.

ESCAPE FROM CORREGIDOR. By Edgar D. Whitcomb. Henry Regnery Company, 1958. 274 Pages; $4.50. This B-17 navigator escaped from Bataan in a rowboat. Posing as a mining employee, he was caught by the Japanese and interned. A lively adventure story, which exemplifies the ideal of the Code of Conduct.

HMS FIDELITY. By Marcel Jullian. W. W. Norton & Company, 1958. 223 Pages; $3.75. A rocking story of a cargo vessel, transformed into a mystery ship by her French captain who seized the ship from Vichy France and bullied the British Navy into signing her over. An amazing tale of attacks on German shipping, landing secret agents, and bloody fights among the crew.

MOON SQUADRON. By Jerrard Tickell. Doubleday & Company, 1958. 204 Pages; $3.50. Stories about the daring British pilots and crews who flew supplies, fifth-column organizers, secret-radio operators, and couriers all over Europe, and later throughout Southeast Asia.

PATROL. By Fred Majdalany. Ballantine Books, 1958. 159 Pages; Paper, $.35. A gripping novel. Major Tim Sheldon, who has been on a lot of extremely dangerous patrols in North Africa in 1943, is about to go on one more. Reviewed in ARMY for September 1953.

POCKET BATTLESHIP: The Story of the Admiral Scheer. By Admiral Theodor Krancke and H. J. Brennecke. W. W. Norton & Company, 1958. 239 Pages; Illustrated; $3.95. The exploits of the Nazi raider which sank 152,000 tons of shipping, told by her skipper and his assistant. *Scheer* operated from the Equator to the Arctic Circle, and was finally sunk at Kiel by the RAF. A dramatic story.

THE POOR MAN'S GUIDE TO EUROPE. By David Dodge. Random House, 1958. 307 Pages; Illustrated; Index; $3.50. A new edition of a masterpiece of suggestions on how a trip around Europe can be more enjoyable and less expensive. Should be of interest to servicemen going to Europe, as well as those already there. You'll have fun while reading of these tricks.

THE SMALLER DRAGON: A political history of Vietnam. By Joseph Buttinger. Frederick A. Praeger, 1958. 535 Pages; Illustrated; Maps; Index; $6.00. The story of Vietnam's long struggle for ethnic and national survival. A vast amount of historical and bibliographical notes represent a real pioneer effort. This is the first book in English that can rightly be called a history of Vietnam.

stallations, with some exceptions: a post brewery, and an internal organization based on true delegation of authority to command subordinates, not overlapping outlines of operational supervision. After putting up with two years of divided authority (local command, and technical supervision) over hospitals, the Confederates finally put them under regional medical control. Such a proposal today would be regarded as outrageously radical.

The Confederates learned at First Manassas of the pitfalls of trying to give medical support to a field army from a base hospital surgical suite. If I read some of the troop planners correctly, we may have to learn this lesson again.

The professional soldier and the military physician—career or *pro tem*—would do well to take time to pore over this book, and to ponder the relation between past experience and potential future.

Red-Shirted Battle Leader

A. P. HILL: Lee's Forgotten General
By William Woods Hassler
Garrett & Massie, 1957
249 Pages; Illustrated; Maps; Index; $3.95

Reviewed by
BRIG. GEN. DONALD ARMSTRONG, USA, *Retired, Past President of the American Military Institute.*

Ambrose Powell Hill has long needed to be rescued from undeserved oblivion. In this succinct and scholarly biography his character and accomplishments have been fairly and effectively portrayed. Dr. Hassler writes only briefly about Hill's family and boyhood in Virginia. There is more about his years at West Point, where he graduated in the class of 1847. Before he resigned from the U. S. Army on 30 March 1861, he had had a variety of experiences of more or less influence on his character and personality. Of greatest human interest is one of history's little ironies: the wooing of Ellen B. Marcy in Washington by A. P. Hill and George B. McClellan. The latter won that skirmish, but a few years later, Hill at Antietam had the last word in their rivalry which Dr. Hassler describes with many little-known details.

Quite understandably, the biographer admires his protagonist and respects his memory, but he hides nothing of the shortcomings of his hero. Dr. Hassler avoids the pitfalls of the debunker or the eulogist or the writers of romanticized biographies. The major portion of his study is the military career of A. P. Hill, who had little to do with strategy, but who carried out tactical maneuvers with energy and courage, if not always with wisdom or foresight. Dr. Hassler carefully analyzes his mistakes as well as the controversial aspects of his impulsive and impetuous moves. He deals at length and most objectively with Hill's personal feuds with Longstreet and Jackson. In his last year Hill suffered almost constantly from a debilitating illness, something of a mystery according to the records, but Dr. Hassler attributes his poor physical condition to the recurrence of severe malarial attacks.

The author has skillfully distilled and refined the voluminous records of Hill's role in the Civil War in this distinguished biography which is a most welcome addition to the indispensable books on that war.

Putzi the Court Jester

UNHEARD WITNESS
By Ernst Hanfstaengl
J. B. Lippincott Company, 1957
317 Pages; Illustrated; Index; $4.95

Reviewed by
DR. RENZO SERENO, *recently of the School of Advanced International Studies of The Johns Hopkins University, and now engaged in a study of political theory and foreign policy.*

The memoirs of "Putzi" Hanfstaengl make good reading. A Canadian newspaperman, Brian Connell, assisted him in the task of freeing himself of his souvenirs, and what appears in this book has all the liveliness of a well-remembered gossip and the fluency of a flight of consciousness.

Hanfstaengl writes in a strange mood: detached and yet almost passionate, critical but seldom, if ever, exculpatory. In fact, he is by no means the best character to emerge. The most striking is Hitler,

whom the author passionately admired, without being blind to the inner turmoil of his twisted mind, accepting as a justification the polysyllabic explanations which psychiatrists often give of such freakish men.

The author was, for all practical purposes, a rare bird in Hitler's circle. Half German, half American, he had left Germany in order to study in the United States, and spent the years of World War I at Harvard. He was a modestly endowed but real intellectual, and came from a family well connected, worldly and cultured. His role in Hitler's circle was quite peculiar: though he stretches the importance of his piano-playing in his relationship with *Der Führer*, his real role was that of court jester. This is food for thought not merely for historian but for political planner. We little suspect who is who within the inner circles of power in a totalitarian system. Hanfstaengl was destined to parlay his piano-playing and his social graces into real power—a power of which he himself was not aware.

The consequences of this strange distribution of power were indeed far-reaching. No person in Nazi Germany was as well informed and as competent in American matters as Putzi, but he was unable to communicate his information and his knowledge to Hitler. The rest of the vast German intelligence machine was bound to fail in the task of conveying to Hitler the harsh realities of American opinion and power. According to the author, in 1932 Hitler declared: "If I come to power I shall take good care to avoid what happened to Wilhelm II, who would tolerate no one near him who told him the truth. That I will never allow." Putzi says: "With him it was even worse. None of them knew anything and he would not listen." Actually the author is unkind to himself. He knew something—in fact, he knew a great deal. But he was unable to influence his chief and unwilling to trade his piano-playing for a real political role. His official post of chief of the foreign press services, from what transpires in the book, took up little of his time and offered him the chance to enjoy himself hugely in his court jester role.

The story of Putzi's fall is rather romantic. In 1937 he was ordered to Spain. Once aboard the plane he was notified that he was to parachute or be deposited in Republican territory, which was a way of disposing of him speedily without leaving guilty traces. The downfall had been caused by the resentment aroused in many colleagues who, as happens in totalitarian systems, were also his bitterest competitors. Engine trouble forced the plane down near Leipzig, and Putzi was able to get away to Switzerland and to start life in exile.

Having been taken into custody in England as an enemy alien, Putzi finally made his way to his second motherland in order to advise the Government in matters of psychological warfare. Not much, these pages tell us, came of his efforts. Perhaps, had he volunteered his services before the outbreak of hostilities, he could have been an effective Gray Eminence of the Allies rather than the court jester he kept on being.

Price of Appeasement

ALLIED WARTIME DIPLOMACY: The Pattern in Poland
By Edward J. Rozek
John Wiley & Sons, 1958
481 Pages; Maps; Index; $6.95

Reviewed by
COL. CHARLES A. H. THOMSON, *Infantry, USAR, former member of AUSA's Executive Council, who is on the staff of the Brookings Institution.*

Edward J. Rozek, Harvard-trained Polish political scientist now teaching at the University of Colorado, fought with the Polish armored division under Montgomery from Normandy into Germany. He was wounded four times. Those wounds have presumably healed—at least they have not interfered with the freedom of his thought and the vigor of his mind. But the wounds inflicted on Poland by Soviet, British, and American policy remain gaping and raw—testimony to the skill, determination, duplicity and brutality of Soviet foreign policy and the inability or unwillingness of the British and Americans to achieve even their minimum hopes for a truncated but free Poland. Nevertheless, the author, with commendable objectivity, has traced out the long, detailed and sorry story of the Soviet victory over his homeland. Most of his sources are well known, and he quotes them copiously and comments judiciously. In addition, however, he has had access to the private files of Poland's wartime leader, Mikolajczyk, and enjoyed long talks with him. These special sources round out the gruesome details without changing in any important way the gross lines of the story, long known from the memoirs of the chief Allied actors and the propaganda of the Soviets and their accomplices.

Rozek takes the usual view of Soviet determination to achieve world conquest, although he is a little fuzzy about whether Communists seek victory for the Soviet state or for world communism. In either case, he is clear that Soviet victory means the end of Western civilization and its emphasis on human dignity and freedom. He takes the familiar view of comprehensive Soviet strategy and tactics unremittingly devoted to that all-encompassing goal. But his long and carefully documented study makes clear in action what the Soviets will do to bring alive the abstract statements of goal, strategy, and tactics. It also suggests powerfully the conclusion that it is impossible to achieve any useful purpose by "relaxing tensions" through appeasement of Moscow—so long as Moscow remains Moscow. If the Soviets would not come around when locked in mortal struggle with the Nazis or under threat of the Western atomic monopoly, why should they be any more reasonable now? As Professor Elliott insists in his foreword, the end of the road of appeasement is slavery.

Is Moscow still Moscow? It is not for Rozek to demonstrate in this book; and logically no historical account can ever give full testimony to the nature of the present. But the Soviets are furnishing their own documentation, day by day. And if we take the advice of our most voluble former President, history has much to teach us. We can learn much from Rozek's account, of both ourselves and our enemy, that will help us in the unremitting struggle of our times.

Civil War Reissues

LEE'S DISPATCHES: Unpublished Letters of General Robert E. Lee
Edited and with an Introduction and Notes by Douglas Southall Freeman
G. P. Putnam's Sons, 1957
416 Pages; Illustrated; Maps; $5.00

THE CIVIL WAR: A Soldier's View
By Col. G. F. R. Henderson; Edited by Jay Luvaas
University of Chicago Press, 1958
323 Pages; Maps; Index; $6.00

Reviewed by
BRIG. GEN. DONALD ARMSTRONG

When several hundred previously unknown letters from Lee to Davis came to light in the early nineteen hundreds, they proved to be extremely valuable additions to the primary sources of Civil War history. When the editing of these dispatches was entrusted to Douglas Southall Freeman, the future biographer of Lee added immeasurably to their value with his introduction and notes. The limited edition published in 1915 has, however, long been out of print. The publication of the letters with some additions edited by Grady McWhiney is consequently reason for much rejoicing by Civil War fans.

There is some mystery about the whereabouts of these dispatches for many decades after the war. Presumably they were in the Confederate President's private file which disappeared after the fall of Richmond. At all events, these letters give us the rare opportunity of learning first-hand many things about Lee's military thinking, character, and outlook in the three climactic years of his career. Not everything of course, because Freeman excluded many letters published in the *Official Records* and elsewhere; but un-

der the skillful guidance of Dr. Freeman, we take a brief journey into the mind of a tragic figure in American history. We gain a better understanding of Lee's strategy in his struggle against an enemy far stronger in manpower, wealth and material resources. In a sense it is an unconscious autobiography that discloses the traits of character that have made Lee one of the most admired and beloved men of our history. His courage, his tactful handling of civil-military relations, his views on strategy, organization, morale, logistics and personnel make his letters a storehouse of useful lessons in the eternal verities of military leadership. Written from 3 June 1862 to 2 April 1865, this collection, according to Dr. Freeman, "complements, fills out, and, at the same time, epitomizes the many dispatches and reports scattered through the bulky volumes of the Records." This alone would ensure wide interest in this book; but Dr. Freeman's introduction and footnotes are a stimulating abridgment of his many volumes on Lee and his lieutenants. As always, Lee and Freeman together are the ideal combination for a study of the Army of Northern Virginia.

In his introduction to Lee's dispatches, Dr. Freeman calls Henderson's *Stonewall Jackson* "the one best account" of the campaigns of Lee and Jackson. Colonel Henderson popularized the study of the American Civil War in Great Britain. His emphasis was on leadership and the problem in English-speaking countries of fighting with untrained and undisciplined forces extemporized for war. He regarded the Civil War as a turning point in the evolution of war, and some of his other writings on that conflict are sufficiently significant to justify their publication more than fifty years after they were written. Thanks to Jay Luvaas, of the Department of History at Allegheny College, we can read his description and comments on Fredericksburg, Gettysburg and the Wilderness, and on other aspects of the Civil War. In spite of some errors which Mr. Luvaas points out in his useful commentary, in spite of the changes in weapons and tactics, Colonel Henderson's efforts to use the campaigns of 1861-65 to teach the fundamental principles of war still have much validity. Moreover, Henderson's descriptions and interpretations are written in a literary style that has seldom been equalled in all military history. The chapters of this book by Mr. Luvaas, dealing with Henderson and his philosophy of war, like the studies by Henderson himself now made available in this collection, have this in common. They stimulate thought on military leadership and morale, and avoid any effort to lay down too dogmatically "specific patterns or lessons" from military history. This collection of Colonel Henderson's writings merits a place on the Civil War shelf beside his *Stonewall Jackson*.

Who Makes Military Policy?

SOLDIERS AND GOVERNMENTS: Nine Studies in Civil-Military Relations
Edited by Michael Howard
Eyre & Spottiswoode, 1957
192 Pages; Index

Reviewed by
Lt. Col. H. A. DeWeerd, *Infantry, USAR, author of books on great soldiers of both World Wars, now on the staff of RAND Corporation.*

This book developed out of a series of lectures on civil-military relations during the last century which was presented under the auspices of King's College, London, by a number of distinguished British scholars. There are chapters on Britain, France, Germany, Russia, Japan, Spain, Latin America, and the United States.

As Mr. Howard, the editor, points out: "The problem of civil-military relationships is one with which, in one form or another, all societies have to deal. In States where no orderly tradition of power and obedience has yet been established —or those where it has been destroyed— military force is the final and sometimes the only arbiter in government. . . . In less complicated societies . . . , such as the States of Europe in the seventeenth and eighteenth centuries, this has been the really vital problem of political organization: how can the armed forces necessary for external security be prevented from crushing internal liberties?"

Now it appears that in Western countries the military-civilian problem is no longer one of trying to secure internal liberties against military encroachments, but a much more complicated one of providing protection for the state against possible obliteration. The internal battle is now waged over priorities of expenditures, over shares of the national economy allocated to various armed services. This is accompanied by a debate as to what kind of war a nation should be prepared to deter, or prepared to fight. Compared to present-day problems, the earlier problems of civil-military relations "seem almost nostalgically simple."

American readers will find the chapters written by Robert Blake on Britain and by Professor Dennis W. Brogan on the United States most interesting. Blake does not believe there was a "conspiracy" in World War I by Haig and Robertson against the civilian Prime Minister, David Lloyd George. To his way of thinking it was a straightforward difference of opinion as to how the war should be won. Blake quotes, but apparently does not believe, Lord Beaverbrook's *Men and Power* in this connection. In spite of the recently published war diaries of Vis-

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count Alanbrooke, Blake does not think there were serious controversies between the soldiers and Churchill in World War II. The controversies were not serious because Churchill had no real political rivals, and the real opponents of the British staff officers were the Americans.

According to Professor Brogan's view, the Congressional control of military activities in the United States seems to be slipping in the atomic age. With concentration of power in the hands of the President, the National Security Council, and the Secretary of Defense, and with the secrecy imposed on weapons and forces, Congress can do little about basic matters of American military policy. Brogan writes: ". . . Senator McCarthy might harass the Department of the Army about the promotion of a dentist, but neither he nor any other Senator could affect or indeed know the terms of the most important decisions of American defence policy. Public opinion could, when stimulated by the press and by criticism expressed in Congress, help force the promotion of the naval officer who designed the first atomic submarine . . . , but it could not affect the basic atomic policy of the United States. . . ."

When information must be withheld for security reasons, the public can only trust the President and his assistants. Professor Brogan, who has a strong affection for America, thinks it "highly desirable that the United States in this important department of public policy should have a government of institutions and principles and not of men. . . ."

"My Hands are Tied"

FIRST BLOOD: The Story of Fort Sumter
By W. A. Swanberg
Charles Scribner's Sons, 1958
373 Pages; Illustrated; Index; $5.95

Reviewed by
MAJ. GEN. HAROLD W. BLAKELEY, *USA, Retired, who has contributed many articles and reviews to this magazine.*

Mr. Swanberg, whose previous book, *Sickles the Incredible,* was well received [ARMY, July 1956], has done another fine job in presenting the story of the first engagement of the Civil War, a story sometimes as incredible as Sickles.

The particular merit of this volume is that the author has traced the influences from Washington, Charleston and other points—influences which vitally affected the actual battle—and has done this without straying from his theme. The result is an outstanding example of selectivity in historical writing.

The story is, of course, in many respects a tragedy. The dominating figure is Major Robert Anderson, 1st Artillery, a conscientious, Kentucky-born West Pointer, married to a Georgian, and with thirty-five years of service behind him. The picture presented of him here is in marked contrast to some earlier ones, notably that of the dogmatic Colonel Robert R. McCormick who, in his *War Without Grant,* charged Anderson with systematically deceiving the authorities in Washington. Swanberg summarizes Anderson as "a man who valued honor and duty above all else."

The reader will be frequently struck by similarities and contrasts between the situation at Fort Sumter—subject as the post was to surprise attack at any time—the Pearl Harbor attack, and the current international situation. The greatest difference is in the difficulties of communications in 1861 as compared with today. Not only was this a major cause of ineffective Navy assistance, but it even existed between Anderson and the War Department.

In the latter case the troubles were not all technical. We now have a proliferation of secretaries, under secretaries, assistant secretaries, and deputy assistant secretaries, some of whom have been accused of operating out of military channels, but it is doubtful if any of them could outdo some of the 1861 examples. Certainly, the situation in which the Secretary of State organized an Army-and-Navy expedition, not only over the heads of the Secretaries of War and Navy, but without their knowledge, is not likely to be repeated.

Major Anderson was harassed by the War Department's slowness in making decisions, unclear orders, and interference with operations. His greatest achievement was that he was able to maintain high morale in his little garrison of about seventy cold, undernourished men surrounded by a force of nearly seven thousand. The formula: keeping them busy at useful work.

Estimate of Japan

JAPAN BETWEEN EAST AND WEST
By Hugh Borton, Jerome B. Cohen, William J. Jorden, Donald Keene, Paul F. Langer and C. Martin Wilbur
Harper & Brothers, 1957
327 Pages; Appendices; Index; $4.75

Reviewed by
LT. COL. PAUL M. A. LINEBARGER, MI, *USAR, who has written several books on the Far East.*

The Council on Foreign Relations is a very select outfit—scholars, diplomats, bankers, lawyers and such. Firmly established, it publishes the quarterly magazine *Foreign Affairs* which is easily the best in the field. On occasion it issues books that are always competent, never illiberal, very serious in tone, and as authoritative as they can be while dealing with topics that are a part of our daily newspapers.

The book developed out of conferences held by the Council on Foreign Relations in 1956, but most of the material is still reasonably up to date. Informal Army participation in the conferences is alluded to through the mention of Lt. Col. A. A. Jordan, Jr., and Lt. Col. John D. Sitterson. From these and about twenty other persons, the authors drew the inspiration and criticism to present their six pieces on fundamental features of Japanese public life today. To these essay-chapters, the editors have intelligently added appendices and tables, including a very interesting summary of Japanese public opinion polls and trade summaries.

Hugh Borton opens the book with a historical summary of the last five years, concluding with a wise epitome of the present state of the Japanese political parties. Paul Langer, who has previously written in this field, follows with a clear and reasonably detailed summary of the position of Japanese communism; he decides, after weighing the evidence, that the Communists may go forward by the tactics of indirect pressure, applied to specific issues, but that their participation in governmental power is still very unlikely. Jerome B. Cohen summarizes the international aspects of Japan's economic situation, pointing out that though the Japanese work hard and develop well, their dependence on outside foods and raw materials is still increasing. Donald Keene, who has made a brilliant name for himself as a versatile young American genius in the field of Japanese letters, contributes a thought-provoking chapter on literary and intellectual matters. He suggests that only in Japan, outside the Iron Curtain, could dull Marxist classics become best-sellers because of the innocence and inquisitiveness of the people.

C. Martin Wilbur, a Sinologist from Columbia University, brings historical depth to his essay on Japan and the Chinese Communists. His summary of the attitudes toward Communist China by different political groups and leaders is subtle, clear, and understandable. Military readers will be interested to hear that the self-proclaimed Japanese military genius, Tsuji Masanobu, draws a sharp distinction between the unpopularity of the Russian Communist regime and the popularity of the Chinese Communist one. Tsuji is not only an ex-militarist, but a successful politician today. His words are worth noting as a Japanese attitude. William J. Jorden concludes the book with a summary of Japan's diplomacy today; this section suffers most from the swift passage of events, but his comments on American-Japanese sore points should not be overlooked.

Americans who wonder what we did in Japan or who ask, "We won the war—but was it worth winning?" can find the facts for their answer here. The record is not perfect, but it is one in which both Americans and Japanese can take pride.

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The Association of the U. S. Army shall be an organization wherein all who are in accord with its objectives may join in the exchange of ideas and information on military matters, and in fostering, supporting, and advocating the legitimate and proper role of the Army of the United States and of all its elements, branches, and components in providing for and assuring the Nation's military security.

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Service Membership. Service Membership in the Association shall be open to all active-duty members of the Army of the United States.

Cadet Membership. Cadet membership in the Association shall be open to the cadets of the United States Military Academy and to all current enrollees in Junior, Military Schools, and Senior Divisions of the Army ROTC Program, including those units provided for by Section 55c of the National Defense Act as amended.

Associate Membership. Associate Membership shall be open to active-duty personnel of the other services, to civilian employees of the Department of the Army not qualified for General Membership, and to any individual who supports the objectives of the Association and who meets such requirements as may be promulgated in regulations passed by the Council of Trustees.

Sustaining Membership. Sustaining membership shall be open to such industrial, commercial, business, professional, technical and veteran firms, corporations, organizations or societies that wish to support the aims and purposes of the Association, subject to specific approval by the Council of Trustees.

REPORT FROM YOUR AUSA CP

A ballot and full information about voting eligibility appears on page 73 of this issue. We urge every eligible person to cast a ballot.

Saturday, 17 May, will be the ninth Armed Forces Day, with the program extending from 10 May through 18 May. "Power for Peace" will be the slogan. AUSA Chapters and ROTC Companies are urged to initiate, and to participate in, local observances in order that the role and achievements of the Army will be fully emphasized.

As announced in the January issue, effective 1 April 1958, we will cease to accept applications for membership unless payment accompanies the application. For the time being, when specifically requested, we will continue to bill members *renewing* a current membership. This change in no way affects Chapter members, who remain on a cash basis for both new and renewal memberships.

FINANCIAL RESUME

For the first time in its history, the Association here publishes a résumé of its financial operations. A number of activities designed to further your Association's objectives were instituted or expanded in 1957. Some of these programs cannot be immediately productive of compensating revenue, but they have increased materially the ability of the Association to accomplish our Aims and Objectives and have made our efforts in behalf of the Army far more effective.

One hundred twenty pages were added to ARMY at an extra cost of $17,000. This marks the fifth successive year that the magazine has been enlarged. This improvement has been made possible, in part, by a steady increase in gross advertising revenue.

The Security of the Nation, a valuable, thirty-page study of current problems in national defense, was published at a cost of $5,500, and distributed without charge to Congress, key military, industrial, and political leaders, the press, our Chapters and others. The response was so favorable that an additional printing was required, making the total distributed over twelve thousand copies. More than three thousand of these were requested by colleges and universities for use in courses.

The Chapter and ROTC Company Program, started late in 1956, was expanded to seventy-two chapters and thirty-eight companies at a cost of over $21,000. The sixteen thousand participants in these "grass-roots" programs are making our views on Army problems known to the public and to Congress and have brought about much closer ties between the Army and the civilian community.

The tremendous increase in membership which began late in 1956 continued in 1957 (our present membership is 56,000) and necessitated a major change in our membership fulfillment operations. At first, additional clerical personnel were added, with attendant increased costs, but the load proved too great. We then converted all membership records to IBM punch cards at a cost of nearly $7,000. This new system, while producing more than a few gray hairs in its early stages, will enable us to serve our ever-growing membership better and provide additional administrative support to our chapters.

Shortly after we completed the change-over in our fulfillment operations, it was found necessary to remove approximately 7,000 individuals from our membership rolls for nonpayment of dues. The loss of these members cost your Association over $25,000. To preclude such losses in the future and to reduce bookkeeping costs, new membership applications must be accompanied by dues payment beginning 1 April 1958. We are taking all possible steps to eliminate unnecessary costs to delay as long as possible the necessity of raising dues.

Our Industrial Symposiums were another new program started in 1957. More than a thousand top executives at-

FORT LEWIS, WASH. Judge George H. Boldt (right) installs officers elected by Washington State Chapter No. 1, on 19 January. Left to right: Maj. Gen. William W. Quinn, 4th Division and Fort Lewis CG; Harry Miner, President; Fred Osmers, First Vice President; Nat Hatcher, Treasurer; Ray Clark, Second Vice President; Lt. Col. John A. Spencer, Secretary.

FORT RUCKER, ALA. Officers who attended the meeting for formulating plans for a membership drive in Southeast Alabama Chapter, held at the Fort Rucker Officers' Open Mess. Left to right: Col. Rex Roach, Third Vice President; Hon. Douglas Brown, Mayor of Ozark, Second Vice President; Hon. M. N. Brown, Mayor of Enterprise, President; Brig. Gen. B. S. Cairns, CG, Army Aviation Center; Selden X. Bailey, First Vice President; Lt. Col. Robert L. Huffaker, Secretary-Treasurer.

Election of Officers and Trustees

for the 1958-1959 term

AUSA's first election of officers and trustees since the 1956 reorganization is now under way. Here is your opportunity as a member to make your influence felt in the selection of those who guide the destinies of our Association.

Vote *now;* ballots received after 15 May cannot be counted.

Nominees were selected by a committee headed by Lt. Gen. Milton G. Baker. Background information on the candidates is listed below.

THE CANDIDATES

Anthony J. Drexel Biddle. Former ambassador. Financier. Adjutant General, Commonwealth of Pennsylvania; Maj. Gen. NGUS. Harrisburg and Philadelphia, Pa.

George H. Olmsted. Insurance banking and aircraft industry executive. Maj. Gen. USAR, commanding 103d Infantry Division. Graduate USMA. Chairman, Finance Committee, Advisory Board of Directors, AUSA. Des Moines, Iowa.

Edward H. Brooks. Executive Director, Association of Military Colleges and Schools. Lt. Gen. USA-Ret.; commanded 11th, 2d Armored Divisions, V Corps, VI Corps (all WWII), U. S. Army Caribbean, and was G1, Department of the Army. Concord, N. H.

John E. Dahlquist. Chairman, 1957 Annual Meeting Committee. Director, Military Department, Harris, Upham & Co. Gen. USA-Ret.; commanded 36th Division in WWII, commanded Fourth Army, Commanding General Continental Army Command. Washington.

Jacob L. Devers. Assistant to President, Fairchild Engine & Aircraft Corp. Chief Military Advisor, U. N. Mission to India and Pakistan. Gen. USA-Ret.; Chief of Armored Force; Commanding General ETO; Deputy Supreme Allied Commander, Mediterranean; Commanding General 6th Army Group (all WWII); Chief, Army Field Forces. Washington.

Manton S. Eddy. Williams Construction Co. Lt. Gen. USA-Ret.; commanded 9th Infantry Division, XII Corps (WWII), Command and General Staff College, U. S. Army in Europe. Was Chief of Information. Columbus, Georgia.

John E. Hull. President, Manufacturing Chemists Association. Member of Council of Trustees, AUSA. Gen. USA-Ret.; former Vice Chief of Staff, U. S. and U. N. Commander in Chief in the Far East, Director Weapons System Evaluation Group, Commander Joint Task Force 7. Washington.

Sherrod E. Skinner. Executive Vice President, General Motors Corp. U. S. Navy (submarine service) WWI. Detroit.

John Slezak. Now President, AUSA. Former Undersecretary of the Army. Industrial executive. Col., Ordnance USAR. Chairman, Reserve Forces Policy Board, Department of Defense. Chicago.

Leif J. Sverdrup. Vice President, AUSA. Engineer; President, Sverdrup & Parcel, consulting engineers. Consultant to federal, state and foreign governments. Maj. Gen. USAR-Ret., commanded 102d Infantry Division. St. Louis.

VOTING INFORMATION

1. **Who may vote.** All General, Service and *Associate* Members. Voting for Associate Members was approved by a change in By-Laws voted by the Council of Trustees 14 March 1958.
2. **Late voting.** Ballots received at AUSA headquarters later than 15 May will not be counted.
3. **Form of Ballot.** The ballot on this page is the official ballot. Those desiring not to mutilate their copies of *ARMY* may use a facsimile, but it is *required* that if facsimile is used the signature block be filled in with the complete information appearing on the address label or envelope including code numbers.

*4. **Write-Ins.** Write-in voting is permitted, but clear identification of the candidate must be furnished.

*5. **Source of Candidates.** Candidates for members of the Council of Trustees must be selected from the Advisory Board of Directors. Candidates for President and Vice President may be selected from the Advisory Board or the general membership, other than cadet members.

6. **Mailing.** Envelopes or packages of ballots should be marked "Ballot"'' in lower left corner and addressed to The Secretary, AUSA.
7. **Multiple mailing.** There is no prohibition against submitting more than one ballot in one envelope or package, but each individual ballot must be signed.
8. **Multiple voting.** Each member may submit one ballot only. Violation will result in all ballots submitted by the member being discarded without counting.

BALLOT

FOR PRESIDENT (vote for one)

- Anthony J. Drexel Biddle ☐
- George H. Olmsted ☐
- *_____ ☐

FOR VICE PRESIDENT (vote for one)

- Anthony J. Drexel Biddle ☐
- George H. Olmsted ☐
- *_____ ☐

FOR COUNCIL OF TRUSTEES (vote for four)

- Edward H. Brooks ☐
- John E. Dahlquist ☐
- Jacob L. Devers ☐
- Manton S. Eddy ☐
- John E. Hull ☐
- Sherrod E. Skinner ☐
- John Slezak ☐
- Leif J. Sverdrup ☐
- *_____ ☐
- *_____ ☐
- *_____ ☐
- *_____ ☐

*See Paragraphs 4 and 5 in "Voting Information" above.

I certify that I am a General, Service or Associate Member of AUSA.

Signature _____

Name Printed _____

Address _____

tended the three classified briefings which AUSA sponsored last year. The growth of this program indicates that it will continue to be self sustaining.

We have of course continued the Annual Meeting, Book Service, and the other service programs in 1957. Most of these programs are self-supporting and contribute to the general overhead of the Association.

The year 1957 was the first full one after the reorganization of the Association. The mandate from the membership required that we inaugurate a greatly expanded program for carrying out the objectives of the Association. Since we did not have a basis for determining in advance the cost of this expanded program, our expenses exceeded our income during the past year. These expenditures are a financial investment in the future of the Association and we consider ourselves fortunate that we were in a position to make this investment without incurring indebtedness. However, if we are to continue to expand our efforts, we must continue to grow in membership at an accelerated rate and must step up our revenue-producing activities.

We are one of the few associations that have not raised dues in the past few years, and we do not wish to do so if it can possibly be avoided. It can be avoided if the present membership will assist their Association in obtaining new members and in publicizing the work that the Association is doing. There are a number of worthwhile projects which the Association should undertake as rapidly as resources permit. Now that we have our major programs fairly well established, a budget is possible and we must maintain our future operations within our annual income. The 1958 budget anticipates sufficient income to enable the Association to further expand its activities, but its success depends in large measure on you, the membership.

WALTER L. WEIBLE
Lt. Gen., USA, Retd.
Executive Vice President

CHAPTERS

ABERDEEN CHAPTER—Box 331, USAOS, Aberdeen Proving Ground, Md. *President:* Capt. Jeffie Muskrat; *Second Vice President:* MSgt Delbert R. Gentry; *Secretary:* Capt. Mary L. Immel; *Treasurer:* 1st Lt. John P. Lewis.

ALAMO CHAPTER—P.O. Box 11401, San Antonio 8, Texas. *President:* Lt. Col. Reagan Houston, III, USAR; *First Vice President:* Gen. William H. Simpson, USA-Rtd.; *Second Vice President:* Col. J. Hamilton Savage, Jr., USAR; *Third Vice President:* Col. John W. Beretta, USAR; *Judge Advocate:* Col. C. E. Brand, USA-Rtd.; *Chaplain:* Maj. David M. Reardon; *Secretary:* Capt. Robert W. Graf; *Treasurer:* Col. E. C. Peters.

ALBUQUERQUE CHAPTER—*Secretary:* Capt. Shirley J. Minge, USAR, USAR Armory, 400 Wyoming Blvd., N.E., Albuquerque, New Mexico. *President:* Lt. Col. Denton E. Sprague; *First Vice President:* Lt. Col. James M. Keating, USAR-Rtd.; *Second Vice President:* Lt. Col. Peter Brooks, USAR; *Treasurer:* 1st Lt. Albert T. Ussery, USAR.

ANTILLES CHAPTER—P.O. Box 368, Roosevelt Station, Hato Rey, Puerto Rico. *President:* Col. Andres Lopez, Rtd.; *First Vice President:* Mr. Frederick C. Dieterle; *Second Vice President:* Col. Rene Lopez Duprey, Rtd.; *Secretary:* Capt. Jack R. Ramey; *Treasurer:* Mr. Efrain Munoz-Bocanegra.

BALTIMORE CHAPTER—Liberty Heights USARC, 3906 Liberty Heights Ave., Baltimore 7, Md. *President:* Mr. William A. Graham; *First Vice President:* Mr. Edward Vinnicombe; *Second Vice President:* Mr. Jack A. Clarke; *Secretary:* Mr. James W. Allison, III; *Treasurer:* Mr. Charles A. Noon, Jr.

BORDER LEGION CHAPTER—Hq 11th Armored Cavalry Regiment, APO 305, New York, N. Y. *President:* Col. Allen D. Hulse; *First Vice President:* Lt. Col. Sterling J. McKean; *Second Vice President:* Lt. Col. Robert P. Andrews; *Third Vice President:* Lt. Col. John J. Prokop, Jr.; *Secretary:* MSgt Frank Langwasser; *Asst. Secretary:* SFC Francis McMahon; *Treasurer:* CWO James N. Spoone.

Chartered 20 February 1958.

CALIFORNIA CENTRAL VALLEY CHAPTER—c/o Information Officer, Sharpe General Depot, Lathrop, Calif. *President:* Brig. Gen. D. S. McConnaughy, USA-Rtd.; *First Vice President:* Col. Robert S. Quick; *Second Vice President:* Col. Wyan Thiessen, USA-Rtd.; *Secretary:* Mr. Kenneth F. Neill; *Treasurer:* Mr. Carroll G. Grunsky.

CENTRAL FLORIDA CHAPTER—P.O. Box 2631, Orlando, Florida. *President:* Col. David W. Hedrick, USAR; *First Vice President:* Maj. James B. Sullivan, USAR; *Second Vice President:* Capt. Leslie C. Hall, USAR, *Secretary:* CWO Elbert G. Hennig, USAR; *Treasurer:* Lt. Col. George E. Smith, USAR.

CENTRAL TEXAS-FORT HOOD CHAPTER—P.O. Box 75, c/o Mr. George Cates, Secretary, Killeen, Texas. *President:* Mr. Roy Reynolds; *First Vice President:* Mr. William Bigham; *Second Vice President:* Mr. J. C. Gresham; *Secretary:* Mr. George Cates; *Treasurer:* Mr. G. M. Wilde.

Maj. Gen. Harry McK. Roper, member of the Council of Trustees, AUSA, was principal speaker at meeting of the Fort Hood Chapter on 30 January. General Roper spoke on the new budget and on the place of the Association. The Corporal missile was on display for more than three hundred members of the Association. Chapter changed its name to Central Texas-Fort Hood Chapter at this meeting and the above officers were elected.

THE CHICAGO AREA CHAPTER—Room 226, 666 North Lake Shore, Drive, Chicago 11, Illinois. *President:* Gen. Robert E. Wood, USA-Rtd.; *First Vice President:* Brig. Gen. Lawrence Whiting, USAR-Rtd.; *Second Vice President:* Brig. Gen. Otto Kerner, USAR-Rtd.; *Third Vice President:* Col. Walter L. Furbershaw, USAR-Rtd.; *Fourth Vice President:* Col. Joseph Triner; *Secretary:* Col. Jules V. Houghtaling, USAR-Rtd.; *Treasurer:* Lt. Col. O. C. Tyler, USAR; *Asst. Secretary:* Lt. Col. Herbert Moselle, USAR.

COLUMBUS-PHENIX CITY-FORT BENNING CHAPTER—Office of the Secretary, USAIS Fort Benning, Ga. *President:* Mr. J. W. Woodruff, Jr.; *First Vice President:* Mr. R. Ashworth; *Second Vice President:*

AUGSBURG, GERMANY. MSgt William Fuller, Jr., 1st Airborne Battle Group, 187th Infantry, reports to the 11th Airborne Division Chapter after returning from AUSA's Third Annual Meeting.

LOS ANGELES, CALIF. Mayor Poulson *(third from right)* presents a special achievement certificate and plaque awarded by Greater Los Angeles Chapter to Dr. William B. Pickering, member of its Board of Directors, Director of the Jet Propulsion Laboratory of Cal Tech and father of America's first pioneer satellite. Others in the picture, all members of Greater Los Angeles Chapter, are, *from left:* Robert C. Goffs, President; Don Belding, member of Council of Trustees, AUSA; Aubrey Austin; Maj. Gen. Leroy H. Watson, USA, Rtd., and Col. John A. Johnston.

Mr. Henry B. Pease; *Secretary-Treasurer:* Col. J. L. Osgard; *Asst. Secretary-Treasurer:* Lt. Col. S. H. Abernathy.

Above officers elected at meeting 23 January. Lt. Gen. Manton S. Eddy reported on AUSA's Annual Meeting. Resolutions were passed including one supporting million-man Army, and several of local interest including one of appreciation for the departing 3d Infantry Division for its cooperation.

DALLAS CHAPTER—*Secretary:* Lt. Col. John Briggs, Southland Insurance Company, Dallas, Texas. *President:* Col. William B. Ruggles, USAR-Rtd.; *First Vice President:* Mr. Harold F. Volk; *Second Vice President:* Mr. N. J. DeSanders, Jr.; *Treasurer:* Mr. Lloyd S. Bowles.

DES MOINES CHAPTER—*Secretary-Treasurer:* Lt. Col. Clyde Putnam, USAR, 720 Des Moines Bldg., Des Moines, Iowa. *President:* Col. Harold E. Pride; *First Vice President:* Lt. Col. Willard Hayne; *Second Vice President:* Lt. Col. William Leachman.

DETROIT CHAPTER—*Secretary:* Mr. Harold J. Miller, Hq Ord Tank-Automotive Command, 1501 Beard, Detroit 9, Michigan. *President:* Maj. Gen. Gordon A. MacDonald, NGUS; *First Vice President:* Col. T. S. Cawthorne, USAR; *Second Vice President:* Mr. Clifford O. May; *Treasurer:* Col. Robert Bruce.

DIX CHAPTER—*Secretary:* MSgt John W. Holland, Company B, 86th Engr Bn (C), Fort Dix, New Jersey. *President:* Col. G. C. Jones; *Treasurer:* 1st Lt. Robert J. Arakelian.

EAST BAY CHAPTER—c/o Col. Earl W. Huntting, Secretary, Insurance Securities Trust Fund, 2030 Franklin St., Oakland 12, Calif. *President:* Mr. Edwin Meese, Jr.; *First Vice President:* Maj. Gen. William F. Dean, USA-Rtd.; *Second Vice President:* Major Paul Reed; *Treasurer:* Lt. Col. John A. Dutro, USAR.

EIGHTH INFANTRY DIVISION CHAPTER—Hq 8th Infantry Division, APO 111, New York, N. Y. *President:* Col. Elmer Schmierer; *Vice President,* Goeppingen Area: Maj. Robert L. Jones; *Vice President,* Ulm Area: Lt. Col. Joseph E. McKinney; *Vice President,* Nurnberg Area: Col. William R. Peers; *Vice President,* Heilbronn Area: Maj. Thomas P. Furey; *Secretary:* Major Joseph W. Lengyel; *Treasurer:* 1st Lt. Jack Biggerstaff.

EL PASO CHAPTER—*Secretary:* Mr. C. William Wakefield, P.O. Box 193, El Paso, Tex. *President:* Dr. Hervey W. Dietrich; *First Vice President and Treasurer:* Mr. Richard W. MacCarthy; Second Vice *President:* Mr. L. T. Vice.

About 120 members attended demonstration 3 February at Fort Bliss on Nike and Corporal.

ELEVENTH AIRBORNE DIVISION CHAPTER—APO 112, New York N. Y. *Honorary President:* Maj. Gen. Hugh P. Harris; *President:* Colonel A. R. Taylor; *First Vice President:* Lt. Col. Edgar R. Fenstemacher; *Second Vice President:* MSgt Abel J. Fernandez; *Secretary:* MSgt Russell A. Steinkuehler; *Treasurer:* Capt. George A. Peters.

MSgt William Fuller, Jr., who represented the Chapter at AUSA's 1957 Annual Meeting, reported to the membership at meeting 30 January. At same meeting Maj. Gen. Gordon B. Rodgers spoke on the general subject of leadership. The Chapter has undertaken a program of encouraging military writing, for ARMY and other professional magazines, offering cash prizes for the best literary efforts.

FORT BRAGG CHAPTER—P.O. Box 36, Fort Bragg, N. C. *President:* Col. J. L. Schaefer; *First Vice President:* Lt. Col. George Blanchard; *Second Vice President:* MSgt Tracy Sweat; *Secretary:* Col. H. E. Archer; *Treasurer:* Major James E. Brady.

Organization meeting elected above officers. Maj. Gen. Robert F. Sink delivered opening remarks. Chapter will include fourteen counties in North Carolina.

FORT DEVENS CHAPTER—Fort Devens, Massachusetts. *President:* Col. Fred L. Walker; *First Vice President:* Lt. Col. Robert C. Harris; *Second Vice President:* Maj. Glenn N. Mayo; *Secretary:* Capt. R. S. Moriarty; *Treasurer:* Major Margot Reis.

FORT LEE CHAPTER—Hq Quartermaster Training Command, Fort Lee, Virginia. *President:* Col. Elmer M. Burns; *First Vice President:* Dr. Howard W. Hembree; *Second Vice President:* Col. Alexander G. Eagle; *Secretary:* Lt. Col. Earl M. Bradley; *Treasurer:* 1st Lt. Carl P. Flanagan, Jr.

Dinner dance 5 February attracted 150 members. Maj. Gen. Rinaldo Van Brunt, Chief of Staff, Second U. S. Army, spoke on need for unity within the Army. Secretary, AUSA, at Fort Lee for Reserve training, met with Chapter officers at luncheon 25 February for discussion of Chapter plans.

FORT LEONARD WOOD CHAPTER—*Secretary:* Capt. James C. Kesterson, Building 401, Fort Leonard Wood, Missouri. *President:* Mr. Dru Pippin; *First Vice President:* Mr. Dale Bradford; *Second Vice President:* Mr. Rudy Weber; *Treasurer:* Lt. Richard J. Kelloff; *Asst. Secretary-Treasurer:* SFC August H. Meyer.

FORT RILEY-CENTRAL KANSAS CHAPTER—Room 114, Patton Hall, Fort Riley, Kansas. *President:* Mr. John D. Montgomery; *First Vice President:* Mr. Ralph Wareham; *Second Vice President:* Mr. Charles S. Arthur; *Executive Secretary:* Mr. Blair D. Adam; *Treasurer:* Mr. Ed J. Rolfs, Jr.; *Recording Secretary:* Sgt. Raymond N. Gesell.

FORT SHERIDAN CHAPTER—Fort Sheridan, Ill. *President:* Lt. Col. Warren J. King; *First Vice President:* Maj. Dale E. Williams; *Second Vice President:* Mr. Donald Y. McKay.

FRANKFURT CHAPTER—*Secretary:* Capt. Robert M. Dwinell, Hq 4th Armor Group, APO 757, New York, N. Y. *Honorary President:* Lt.

UNIVERSITY OF OKLAHOMA. Cadet Col. R. L. Teel, Company Commander of "Sooner" Company, discusses organization and aims of newly activated ROTC Company at its chartering exercises. *Left to right* are: Prof. Charles C. Bush, Jr., History Department; Col. Matticus W. May, PMST; Maj. Gen. Thomas De Shazo, CG, Artillery & Missile Center; George L. Cross, University President; Maj. Gen. Hal Muldrow, CG, 45th Infantry Division; Cadet Bryon Lamun, who conducted Benedictine and Invocation.

COLORADO SPRINGS, COLO. First Sgt. Peter Lopez pays Virginia Hart for a meal in Colorado Springs with cash and AUSA scrip certificates. When a soldier makes a purchase, he gives scrip equal to the amount of the sale. Merchant retains certificates, and at end of each month approximates amount of money spent in his establishment by Fort Carson soldiers. Program was inaugurated by Pikes Peak Chapter to stress impact of Carson upon local economy and boost its 1958 membership drive.

Gen. Francis W. Farrell; *President:* Col. Melvin M. Kernan; *Honorary Vice President:* Maj. Gen. Paul D. Adams; *First Vice President:* Col. Clarence E. Read; *Second Vice President:* Col. Austin J. Montgomery; *Treasurer:* Maj. Robert J. Fair.

GEORGE WASHINGTON CHAPTER—*Secretary:* Mr. Henry Handler, 409 Perry Street, Fairfax, Virginia. *President:* Dr. Roland R. Kirks; *First Vice President:* Gen. Jacob L. Devers, USA-Rtd.; *Second Vice President:* Mr. Warren R. Smith; *Treasurer:* Major John P. Kelley.

GREATER LOS ANGELES CHAPTER—*Secretary:* 1st Lt. Doris M. Schmerling, CO, Wac Det., Fort MacArthur, Calif. *President:* Mr. Robert C. Geffs; *First Vice President:* Col. Joseph H. Pengilly, USAR-Rtd.; *Second Vice President:* Lt. Col. Jack Warner, USAR *Treasurer:* Brig. Gen. A. J. Maxham, Cal. NG Res.

Chapter, acting for national AUSA, presented Dr. William H. Pickering, satellite scientist, with Certificate of Achievement; plaque was awarded as Chapter presentation. Presentations were made at City Hall by Mayor Norris Poulson 20 February. Dr. Pickering is a Director of the Chapter, and director of the Jet Propulsion Laboratory of California Institute of Technology.

HAWAII CHAPTER—Association of U. S. Army, Box 100, APO 958, San Francisco, Calif. *President:* Lt. Gen. Henry S. Aurand, USA-Rtd.; *First Vice President:* Brig. Gen. Kendall J. Fielder, USA-Rtd.; *Second Vice President:* Maj. Gen. Fred W. Makinney HNG; *Third Vice President:* Col. Percy H. Johnston, USAR; *Secretary:* Major Charles D. Flinn; *Treasurer:* Capt. Kenneth Y. H. Ahana.

HEADQUARTERS SEVENTH U. S. ARMY CHAPTER—c/o Secretary of the General Staff, Headquarters, Seventh U. S. Army, APO 46, New York, N. Y. *President:* Brig. Gen. James K. Wilson, Jr.; *First Vice President:* Col. Donald M. McClain; *Second Vice President:* Col. James Taylor, Jr.; *Secretary:* Major Young O. Kim; *Treasurer:* Lt. Colonel Dan P. Briggs.

HEIDELBERG CHAPTER—Hq USAREUR, APO 403, New York, New York. *President:* Major Gen. G. E. Martin; *First Vice President:* Col. K. E. Adamson; *Second Vice President:* Col. S. E. Otto; *Secretary:* Maj. A. L. Shoaff; *Treasurer:* Major W. H. Brandenburg.

HENRY LEAVENWORTH CHAPTER—614 Delaware Street, Leavenworth, Kansas. *President:* Lt. Col. Harold E. Purdy, USAR; *First Vice President:* Mr. John W. Breidenthal; *Second Vice President:* Col. John H. Hay; *Secretary:* Maj. John H. Cushman; *Treasurer:* Mr. George H. Ryan.

INDIANA CHAPTER—711 N. Pennsylvania St., Indianapolis, Indiana. *President:* Maj. Gen. Emmett J. Bean, Rtd.; *First Vice President:* Brig. Gen. John W. McConnell; *Second Vice President:* Colonel James O. Freese; *Secretary:* Major Jack K. Elrod; *Treasurer:* Major Walter J. Schuchmann.

KELLEY BARRACKS CHAPTER—Attn: SGS, APO 107, New York, N. Y. *President:* Col. J. K. Boles; *First Vice President:* Lt. Col. J. T. Joseph; *Second Vice President:* MSgt E. M. Kirlin; *Secretary:* Col. L. G. Robinson; *Treasurer:* Capt. H. J. Korstange.

KENTUCKIANA CHAPTER—General Delivery, Fort Knox, Kentucky. *President:* Dr. Phillip Davidson; *First Vice President:* Mr. Thomas Graham; *Second Vice President:* Mr. Ducat McEntee; *Secretary:* Capt. Clarence W. Pratt; *Treasurer:* Capt. Wilbur T. Whitehead; *Asst. Secretary:* MSgt Robert J. McDonald; *Asst. Treasurer:* Capt. Sidney R. Steele.

LAWTON-FORT SILL CHAPTER—*Secretary:* Maj. Rawlins M. Morris, P.O. Box 84, Lawton, Okla. *President:* Mr. George Page; *First Vice President:* Mr. Milton Worley; *Second Vice President:* Mr. Floyd Zook; *Treasurer:* Brig. Gen. John F. Bird, Rtd.

LOS ALAMOS-SANTA FE CHAPTER—*Secretary:* Maj. Joy E. Fincke, USAR, 2139-A 48th St., Los Alamos, New Mexico. *President:* Lt. Col. John F. Weinbrecht, USAR; *First Vice President:* Lt. Col. Samuel P. Davalos, USAR; *Second Vice President:* Maj. Carl A. Freeman, USAR; *Treasurer:* Maj. Harry D. Wise, USAR.

Chartered 13 February 1958.

MACON COUNTY CHAPTER—*Secretary:* Capt. Richard G. Derby, Adjutant, Decatur Signal Depot, Decatur, Illinois. *President:* Col. Harold Schmitt, USAR; *First Vice President:* Lt. Col. Fred J. Hays, Rtd.; *Second Vice President:* Capt. Robert E. Creek, USAR; *Treasurer:* Capt. John T. McCracken.

MANNHEIM CHAPTER—*Secretary:* Lt. Col. Edward J. McGrane, c/o Hq 34th AAA Brigade, APO 28, New York, N. Y. *President:* Col. William A. Stricklen; *First Vice President:* Lt. Col. Howard F. Schiltz; *Second Vice President:* Lt. Col. Edward S. Mathes; *Treasurer:* Capt. Henry G. Stoehr.

McCOY-RED CLOUD CHAPTER—*Secretary:* Mr. Robert Ninneman, Tomah, Wisc. *President:* Mr. Frederic D. Rahr; *First Vice President:* Mr. Don Harris; *Second Vice President:* Mr. John Kaehler; *Treasurer:* Mr. Stuart Latimer.

MILWAUKEE CHAPTER—*Secretary:* Mr. George Comte, 5009 N. Cumberland Blvd., Milwaukee, Wisconsin. *President:* Brig. Gen. Don E. Carleton; *First Vice President:* Mr. G. M. Taylor; *Second Vice President:* Lt. Col. Roth S. Schleck; *Treasurer:* Maj. Frank X. Mages.

MONTEREY COUNTY CHAPTER—AUSA, Box 187, Pebble Beach, Calif. *President:* Col. Allen Griffin, AUS-Rtd.; *First Vice President:* Mr. Joseph Juri; *Second Vice President:* Maj. Gen. Robert B. McClure,

NURNBERG, GERMANY. Lt. Gen. Bruce C. Clarke *(left)*, CG, Seventh U. S. Army, congratulates Brig. Gen. William F. Ryan, President, at ceremonies chartering Nurnberg Chapter. At right is Maj. Gen. Derrill M. Daniel, Honorary President.

NEW YORK CITY. Maj. Gen. P. D. Ginder *(right)*, First U. S. Army Deputy Commander for Reserve Affairs, presents the Charter of New York Chapter to its President, Lt. Col. Charles J. Katz. *Left to right:* Maj. Gen. E. M. Houseman, CG, TTC, Atlantic; Colonel Katz; Col. S. G. Brown, Jr., First Army G4.

Rtd.; *Secretary:* Mr. Richard Bennett; *Treasurer:* Col. Frank A. Heywood, Rtd.

MOTHER LODE CHAPTER—*Secretary-Treasurer:* Lt. Col. William L. Shaw, NGUS, Sacramento Signal Depot, Sacramento, Calif. *President:* Mr. George H. Holt; *First Vice President:* Col. Albert E. Billing, USA-Rtd.; *Second Vice President:* Col. Joseph S. Gorlinski, USA-Rtd.; *Asst. Secretary-Treasurer:* Capt. Robert N. Dempster, USA.

NEBRASKA CHAPTER—c/o U. S. Army Military District, Nebraska, 21st and Woolworth Avenue, Omaha, Nebraska. *President:* Maj. Charles E. Artzberger, USAR; *Secretary-Treasurer:* Lt. Col. Robert J. Brown, USAR.

NEW ORLEANS CHAPTER—4400 Daupine St., New Orleans 40, La. *President:* Mr. Wallace M. Davis; *First Vice President:* Col. Donald E. MacDonald; *Second Vice President:* Brig. Gen. Robert V. Maraist, USA-Rtd.; *Third Vice President:* Mr. Jonas C. Sporl; *Secretary:* Maj. Louis Robillia, Jr., USAR; *Treasurer:* Mr. Newton D. McLean.

NEWTON D. BAKER CHAPTER—*Secretary:* Col. Richard L. Gillespie, USAR, Veterans Admin. Regional Office, Cuyahoga Building, Cleveland 14, Ohio. *President:* Hon. Robert H. Jamison; *First Vice President:* Gen. William F. Hoge, USA-Rtd.; *Second Vice President:* Brig. Gen. George R. Schmucker, USAR-Rtd.; *Treasurer:* Lt. Col. Henry E. Zachman, USAR.

NEW YORK CHAPTER—*President:* Lt. Colonel Charles I. Katz, USAR, 250 West 57th Street, New York 19, New York; *First Vice President:* Col. Arthur D. Hirt, USAR; *Second Vice President:* Lt. Col. Pelham St. George Bissell, III, USAR; *Secretary:* Maj. Daniel J. Kern, USAR; *Treasurer:* Col. Lloyd W. Stearns, USAR.

Despite bitterly cold weather, meeting 18 February drew 150 members. Lt. Gen. Blackshear M. Bryan, CG, First U. S. Army, was principal speaker. Chapter has written to key legislators on AUSA objectives.

NORTH FLORIDA CHAPTER—P.O. Box 731, Tallahassee, Florida. *President:* Lt. Col. Jessie F. Warren, USAR; *First Vice President:* Lt. Col. Jay L. Hall, NGUS; *Second Vice President:* Lt. Col. Samuel L. McCall, USAR; *Secretary:* MSgt William L. Tumlin, RA-Rtd.; *Treasurer:* Lt. Col. John E. Miklos, USAR.

NORTHEAST FLORIDA CHAPTER—P.O. Box 3141, Jacksonville, Florida. *President:* Mr. Henry J. Wolfs; *First Vice President:* Mr. Frank F. Strickland; *Second Vice President:* Mr. J. A. Dionne; *Secretary:* CWO Robert J. Crawford, USAR; *Treasurer:* Mr. Jacob W. Dehaan.

NORTHERN DELAWARE CHAPTER—P.O. Box 607, Wilmington 99, Delaware. *President:* Col. Walter L. Tindall, DNG; *First Vice President:* Mr. Henry N. Marsh; *Second Vice President:* MSgt John E. Mastin; *Secretary:* 1st Lt. Donn Devine; *Treasurer:* Lt. Frank M. Gorsuch, III, USAR.

NURNBERG AREA CHAPTER—*Secretary:* Capt. Thomas F. Ellzey, Special Activities Division, Hqs USAREUR, APO 245, New York, N. Y. *Honorary President:* Maj. Gen. Derrill M. Daniel; *President:* Brig. Gen. William F. Ryan; *First Vice President:* Lt. Col. John R. Himmelright; *Second Vice President:* MSgt Raymond J. Kline; *Treasurer:* Lt. Col. William H. Dodge, Rtd.

OKLAHOMA CITY CHAPTER—1101 North Broadway, Oklahoma City, Oklahoma. *President:* Col. Charles E. Tompkins; *First Vice President:* Brig. Gen. Paul B. Bell; *Second Vice President:* Col. John W. Long, AUS-Rtd.; *Secretary:* 1st Lt. Ruth Anne Love, ANC; *Treasurer:* Col. Luzerne M. Tidd, AUS-Rtd.

OZARK CHAPTER—Fort Chaffee, Arkansas. *President:* Brig. Gen. Ralph R. Mace; *First Vice President:* Col. F. G. Stritzinger, IV; *Second Vice President:* Lt. Col. C. E. Canine; *Secretary-Treasurer:* Mrs. Helen R. Scott.

Charter presented to Brig. Gen. Ralph R. Mace, Commanding General, Fort Chaffee, by Lt. Gen. Walter L. Weible, AUSA Executive Vice President. Ceremony held during banquet 28 February at Chaffee; attendance about two hundred.

PIKES PEAK CHAPTER—P.O. Box 2442, Colorado Springs, Colorado. *President:* Lt. Col. J. D. Ackerman, USAR; *Executive Vice President:* Major Gen. William H. Gill, USA-Rtd.; *Vice President for Membership:* Mr. George S. Winters; *Vice President for Programs:* Mr. Samuel T. Jones, Jr.; *Secretary:* Lt. Col. Frank A. Golbey AUS-Rtd.; *Treasurer:* Major H. C. Fleming, Jr., USAR.

With cooperation of Fort Carson authorities, Chapter is trying experiment of paying Carson personnel with non-legal-tender scrip in addition to pay, to indicate to local merchants impact of Carson payroll on area economy. Military personnel make purchases with money but give merchants equal amount of scrip. At grand rally at end of period, combined with AUSA membership drive, merchants will turn in scrip to Chamber of Commerce, where it will be totaled.

Chapter has been unusually active in campaigns of letter-writing and personal contacts with government officials, legislators and others on Army's needs.

PINELLAS CHAPTER—*Secretary:* Capt. Robert M. Dobarganes, USAR, 6414 Sandpiper Way, St. Petersburg 7, Fla. *President:* Brig. Gen. E. W. Piburn, USA-Rtd.; *First Vice President:* Col. James P. Schwartz, USAR; *Second Vice President:* Col. Alex J. Robinet, US-AR-Rtd.; *Third Vice President:* Col. Nonie W. Gable, NGUS; *Treasurer:* MSgt William M. Bohannon, Jr., USAR.

POLK CHAPTER—*Secretary:* Maj. LeRoy Conklin, Fort Polk, La. *President:* Mr. F. E. Hernandez; *First Vice President:* Mr. F. H. Coughlin;

FORT BLISS, TEXAS. Dr. Hervey W. Dietrich, President of El Paso Chapter, presents the AUSA Medal to Capt. Benjamin E. Feldmeir, honor graduate of the Associate AAA & SAM Officer Advanced Course at the U. S. Army Air Defense School.

WASHINGTON, D. C.. Maj. Gen. Harry McK. Roper, member of Council of Trustees, hands AUSA's Certificate of Appreciation to Maj. Gen. Paul F. Yount, retired Chief of Transportation (top picture) and to Lt. Gen. E. L. Cummings, former Chief of Ordnance (bottom photo), in ceremonies held at the Pentagon. Others are Henry Handler (left), Secretary of George Washington Chapter, and Gen. L. L. Lemnitzer (right), Vice Chief of Staff and former President of AUSA.

Second Vice President: Mr. Euclid Morris; *Treasurer:* Mr. Keith Pigott.

SAN BERNARDINO COUNTY CHAPTER—c/o MSgt. Gerald Morgan *(Treasurer)*, Comptroller's Section, Camp Irwin, California. *President:* Mr. George W. Savage; *First Vice President:* Mr. Victor J. Smith; *Second Vice President:* Lt. Col. Christian E. Petersen, AUS-Rtd.; *Secretary:* MSgt. Alfred Schmidt.

SAN FRANCISCO CHAPTER—*Secretary:* Col. C. C. W. Allan, Deputy Chief of Staff for Public Affairs, Hq Sixth U. S. Army, Presidio of San Francisco, California. *President:* Mr. Frederick M. Fisk; *First Vice President:* Lt. Gen. Claude B. Ferenbaugh, USA-Rtd.; *Second Vice President:* Mr. William M. McNabb; *Treasurer:* Mr. Albert Leslie.

SARASOTA-BRADENTON AREA CHAPTER—P.O. Box 3636, Sarasota, Florida. *President:* Lt. Col. James F. Kahlenberg, USAR; *First Vice President:* Capt. Donald Larsen, USAR; *Second Vice President:* Lt. Col. Gerald Ludwig, USAR; *Third Vice President:* Major W. S. Telford, Jr., USAR; *Secretary-Treasurer:* Lt. Col. Edward J. Heney, USAR.

SEATTLE CHAPTER—The Officers' Open Mess, Fort Lawton, Washington. *President:* Mr. Arthur T. Lee; *First Vice President:* Mr. Joseph A. Sweeney; *Second Vice President:* Brig. Gen. Harold L. Goss, USAR-Rtd.; *Secretary:* Col. John R. Dey; *Treasurer:* Mr. Paul Danforth.

General meeting 26 January heard Maj. Gen. William W. Quinn and Joseph A. Sweeney; went on record supporting million-man Army. Visit made to Nike site 8 February; membership was impressed by caliber of our missilemen and resolved to press for career incentives.

SIOUX FALLS CHAPTER—*Secretary:* Capt. James E. Moore, 2316 S. Third Street, Sioux Falls, S. D. *President:* Mr. Dan Dugan; *First Vice President:* Mr. Al A. Schock; *Second Vice President:* Mr. William C. Duffy; *Treasurer:* 1st Lt. Fred Masek.

January meeting featured film of scenes taken in USSR during visit of Mr. and Mrs. Maurice B. Wilson, plus official film on space travel.

SOUTH FLORIDA CHAPTER—P.O. Box 8173, Miami 46, Florida. *President:* Maj. John R. Lindsey, USAR; *First Vice President:* Lt. Col. T. A. Price, Rtd.; *Second Vice President:* Col. Robert A. Ballard, NG; *Secretary:* WOJG Harold M. Word, NG; *Treasurer:* Capt. Douglass D. King, Jr., USAR.

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President wrote both Pennsylvania Senators and local Congressional members on subject of limited war and the need for a strong Army.

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ROTC COMPANIES

CANISIUS COLLEGE COMPANY, Canisius College, Buffalo, New York —*Captain:* Cadet Daniel T. Kirst; *First Lieutenant:* Cadet Thomas

WEST DE PERE, WIS. Major Joseph F. H. Cutrona, PMST, congratulates two mid-year graduating members of St. Norbert College Company who have accepted commissions in the Army. John L. Weiler (center), Artillery, goes to Fort Sill's OBC; Jerome G. Johnson (right), Infantry, who will go to TIS, turned down a professional football offer.

R. Block; *Second Lieutenant:* Cadet Joseph S. DePaolo; *First Sergeant:* Cadet Daniel W. Sullivan.

Company donated 10 basketball uniforms in college colors to orphans of the Immaculate Heart of Mary Home; news story on presentation in college paper mentioned that project took Company "slightly afield from its objectives." Favorable publicity for ROTC should be objective of all Companies. Meeting of 29 January featured tactical films.

CITADEL COMPANY, The Citadel, Charleston, S. C.—*Captain:* Cadet Ronald Zeltman; *First Lieutenant:* Cadet Eugene Cannon; *Second Lieutenant:* Cadet Jerry Wright; *First Sergeant:* Cadet Art Richards.

CLARKSON COMPANY, Clarkson College of Technology, Potsdam, New York—*Captain:* Cadet Donald Broadhurst; *First Lieutenant:* Cadet Robert F. Koenig; *Second Lieutenant:* Cadet Charles Fish; *First Sergeant:* Cadet Sigmund Mierzwa.

DAKOTA COMPANY, North Dakota Agricultural College, Fargo, N. D. —*Captain:* Cadet John H. Huntley; *First Lieutenant:* Cadet James A. Maetzold; *Second Lieutenant:* Cadet William K. Fraase; *Social Chairman:* Cadet Stanley F. Lindine; *First Sergeant:* Cadet Richard E. Eggan.

DICKINSON COLLEGE COMPANY, Dickinson College, Carlisle, Pa.— *Captain:* Cadet Wilbur M. Otto; *First Lieutenant:* Cadet Fred Conrad; *Second Lieutenant:* Cadet William Rogers; *First Sergeant:* Cadet Dick Schafer; *PIO Sergeant:* Cadet William Black.

DUQUESNE UNIVERSITY COMPANY, Duquesne University, Pittsburgh 19, Pa.—*Captain:* Cadet Francis R. Schmidt; *First Lieutenant:* Cadet Eligio A. Deluca; *Second Lieutenant:* Cadet Robert Rocks; *First Sergeant:* Cadet James H. McAllister.

EASTERN CADET OFFICERS COMPANY, Eastern Kentucky State College, Richmond, Kentucky—*Captain:* Cadet John N. Combs; *First Lieutenant:* Cadet W. S. Wainscott; *Second Lieutenant:* Cadet Robin D. Wagoner; *First Sergeant:* Cadet James L. Davis.

EDMUND R. WALKER COMPANY, University of Connecticut, Storrs, Conn.—*Captain:* Cadet Francis E. Dion, Jr.; *First Lieutenant:* Cadet Liudas Bajorinas; *Second Lieutenant:* Cadet Howard M. Belinsky; *First Sergeant:* Cadet Edward H. Soderberg.

FLORIDA SOUTHERN COLLEGE COMPANY, Florida Southern College, Lakeland, Florida—*Captain:* Cadet Robert P. Jones; *First Lieutenant:* Cadet Richard Fulford; *Second Lieutenant:* Cadet William Hatton; *First Sergeant:* Cadet John D. Watson.

GEORGETOWN UNIVERSITY ROTC COMPANY, Georgetown University, Washington, D. C.—*Captain:* Cadet George F. Landegger; *First Lieutenant:* Cadet John A. Leide; *Second Lieutenant:* Cadet Robert J. Spazzarini; *First Sergeant:* Cadet Joseph J. Kane.

GORDON COMPANY, Gordon Military College, Barnesville, Georgia —*Captain:* Cadet William A. McKoy; *First Lieutenant:* Cadet Peter L. Banks; *Second Lieutenant:* Cadet Ward M. Chewning, Jr.; *First Sergeant:* Cadet Max E. Sappington.

IDAHO STATE COLLEGE COMPANY, Idaho State College, Pocatello, Idaho—*Captain:* Cadet Dean L. Showers; *First Lieutenant:* Cadet Ronald Pugmire; *Second Lieutenant:* Cadet Harvey I. Buckles; *First Sergeant:* Cadet Corwin Lott.

"The Medical Effects of Nuclear Radiation," an official film, was shown at 14 January meeting. Cadet Stanley Olson, the Company's representative at the 1957 Annual Meeting of AUSA, reported on his trip and showed color slides of the occasion.

ILLINI COMPANY, University of Illinois, Champaign, Illinois—*Captain:* Cadet Armand Ferrini; *First Lieutenant:* Cadet Kenneth Weber; *Second Lieutenant:* Cadet Charles W. Thompson; *First Sergeant:* Cadet Ray L. Allison.

Meeting 25 February featured illustrated lecture by Prof. Stanley P. Wyatt, Astronomy Department of the University, on space travel, satellites, and planets. Film "The Effects of Atomic Bomb Explosions," was shown at 11 February meeting.

INDIANA STATE TEACHERS COLLEGE ROTC COMPANY, State Teachers College, Indiana, Pennsylvania—*Captain:* Cadet Harry D. Fair; *First Lieutenant:* Cadet Warren Edmiston; *Second Lieutenant:* Cadet Paul J. Zurovchak; *First Sergeant:* Cadet Bernard A. McCue.

Cadet William Krizan spoke on the Pentomic Army, and two films were shown, at meeting 19 February. The Company assisted the Army missile exhibit unit during its showing at Indiana 5 and 6 March. Meeting 5 February viewed two films, "Ranger Training," and "Sportsreel of 1956."

JOHN CARROLL UNIVERSITY COMPANY, John Carroll University, Cleveland 18, Ohio—*Captain:* Cadet George W. Makra; *First Lieutenant:* Cadet Jerry Porter; *Second Lieutenant:* Cadet Robert Seiler; *First Sergeant:* Cadet Roger Hurley.

KEMPER MILITARY SCHOOL COMPANY, Kemper Military School, Boonville, Missouri—*Captain:* Cadet Ira M. Click; *First Lieutenant:* Cadet Fred M. McLane; *Second Lieutenant:* Cadet Robert E. Ebersole; *First Sergeant:* Cadet Rael F. Amos.

LOUISIANA STATE UNIVERSITY COMPANY, Louisiana State University, Baton Rouge 3, La.—*Captain:* Cadet Lamarr E. Coxe; *First Lieutenant:* Cadet Frank A. Atkins; *Second Lieutenant:* Cadet J. D. LeBlanc; *First Sergeant:* Cadet Thomas J. Barham.

LOYOLA COLLEGE COMPANY, Loyola College, Baltimore 10, Md.— *Captain:* Cadet William R. Gegner; *First Lieutenant:* Cadet Hugh F. McKenna, Jr.; *Second Lieutenant:* Cadet William A. Noonberg; *First Sergeant:* Cadet Peter C. Santoni.

Above officers elected 12 February. Meeting 14 February was addressed by Maj. Robert Huntington, Ordnance Corps, who spoke on the new Army rifle.

THE LOYOLA UNIVERSITY COMPANY, Loyola University, 6525 Sheridan Road, Chicago 26, Illinois—*Captain:* Cadet Thomas Nolan; *First Lieutenant:* Cadet Eugene Crosant; *Second Lieutenants:* Cadets Gerald Pierce and Harold Murphy; *First Sergeant:* Cadet Paul M. Maffia.

LT. CHARLES J. FITE COMPANY, Gettysburg College, Gettysburg, Pennsylvania—*Captain:* Cadet Henry F. Coyne; *First Lieutenant:* Cadet Donald W. Hallauer; *Second Lieutenant:* Cadet Gary L. Seufert; *First Sergeant:* Cadet Ronald E. Nitzsche.

THE MANLIUS COMPANY, The Manlius School, Manlius, New York —*Captain:* Cadet George K. Montgomery; *First Lieutenant:* Cadet William E. Dauphin; *Second Lieutenant:* Cadet Robert W. Swaney; *First Sergeant:* Cadet William W. Rankin; *Staff Sergeant:* Cadet John J. Sullivan.

Pre-charter meeting 23 February heard Lt. Col. Raymond H. Poore, PMST, Syracuse University, speak on the college ROTC program.

MOCCASIN COMPANY, University of Chattanooga, Chattanooga, Tenn. —*Captain:* Cadet John Doyle; *First Lieutenant:* Cadet Hoyt Jenkins; *Second Lieutenant:* Cadet Lawrence Putnam; *First Sergeant:* Cadet Thomas Murphy.

THE MONTANA STATE UNIVERSITY ARMY ROTC COMPANY, Montana State University, Missoula, Montana—*Captain:* Cadet William Good; *First Lieutenant:* Cadet Gerald Miller; *Second Lieutenant:* Cadet Fred Weldon; *First Sergeant:* Cadet William Crawford.

Lt. Col. William J. Lewis, PMST, addressed 4 February meeting on the Peruvian Army, and the general subject of our relations with Peru. Members of the Company have volunteered to assist Pershing Rifles by preparing night problems.

NEW YORK UNIVERSITY HEIGHTS COMPANY, New York University, New York 53, N. Y.—*Captain:* Cadet Dennis C. Howley; *First Lieutenant:* Cadet Michael Katos; *Second Lieutenant:* Cadet Eugene Pisani; *First Sergeant:* Cadet Ronald DiStefano.

"OLE MISS" COMPANY, The University of Mississippi, University, Mississippi—*Captain:* Cadet Monroe Pointer; *First Lieutenant:* Cadet Robert M. Williams, Jr.; *Second Lieutenant:* Cadet Kent E. Lovelace; *First Sergeant:* Cadet Lowell O. Winston, Jr.

PENNSYLVANIA STATE UNIVERSITY COMPANY, The Pennsylvania State University, University Park, Pa.—*Captain:* Cadet Gordon K. Pollard; *First Lieutenant:* Cadet Keith F. Vansant; *Second Lieutenant:* Cadet Albert J. Chukusky; *First Sergeant:* Cadet Frank H. Morris.

Company at meeting 18 February heard report by First Sgt. Frank H. Morris on necessity for million-man Army, and viewed films on communism. Company is ordering decals and AUSA flag.

ROBERT E. SYLVEST COMPANY, Northwestern State College of Louisiana, Natchitoches, La.—*Captain:* Cadet Robert F. Kelley; *First Lieutenant:* Cadet Gerard Schorr; *Second Lieutenant:* Cadet Donald G. Walker; *First Sergeant:* Cadet George C. Davis.

Film on Britain's North Africa campaign in WWII was shown at 13 February meeting.

SIENA ROTC COMPANY, St. Bernardine of Siena College, Loudonville, New York—*Captain:* Cadet Paul R. Riley, Jr.; *First Lieutenant:* Cadet John W. Stahlman; *Second Lieutenant:* Cadet Louis R. LaGasse; *First Sergeant:* Cadet J. Vincent Chesterfield.

SIOUX COMPANY, University of North Dakota, Grand Forks, North Dakota—*Captain:* Cadet Darryl Earl Durgin; *First Lieutenant:* Cadet James Roger Zavoral; *Second Lieutenant:* Cadet Van Kirk Carlson; *First Sergeant:* Cadet Charles John Bruce Gessner.

Captains Eugene L. Curtis and Ed Klosterman, USA, showed slides of Europe and the Far East at 18 February meeting. Meeting discussed plans for military ball.

"SOONER COMPANY," University of Oklahoma, Norman, Oklahoma —*Captain:* Cadet Richard L. Teel; *First Lieutenant:* Cadet Charles W. Henry, Jr.; *Second Lieutenant:* Cadet John L. Walter; *First Sergeant:* Cadet Rex J. Woods.

Maj. Gen. Thomas De Shazo, CG, Artillery and Guided Missile Center, Fort Sill, was principal speaker at Charter meeting 8 January. Gen. Hal Muldrow, CG, 45th Infantry Division, and George L. Cross, President, University of Oklahoma, were special guests.

On 5 February, 31 members traveled to Fort Knox to observe a demonstration of armor.

Sooner Company is working closely with Scabbard and Blade and Pershing Rifles on the University campus.

ST. NORBERT COLLEGE COMPANY, St. Norbert College, West de Pere, Wisconsin—*Captain:* Cadet Duane L. Hoerning; *First Lieutenant:* Cadet Richard Van Egeren; *Second Lieutenant:* Cadet Lawrence Woulf; *First Sergeant:* Cadet John Payne.

Meeting 15 January featured lecture by Professor of Political Science of the College on the subject of national security and the role of the Army, particularly in "little wars."

TEXAS CHRISTIAN UNIVERSITY COMPANY, Texas Christian University, Fort Worth 9, Texas—*Captain:* Cadet Larry Lands; *First Lieutenant:* Cadet Frank Hyde; *Second Lieutenant:* Cadet Kenneth Howard; *First Sergeant:* Cadet Jimmy Lindsey; *Sergeants:* Cadets Ronnie Coleman, George Depee, Joe Dulle and Robert Fleming.

Lt. Col. Eugene Watts, PMST, spoke on the Pentomic Division at meeting 18 February.

TEXAS TECH COMPANY, Texas Technological College, Lubbock, Texas —*Captain:* Cadet Neil Mark Wyatt; *First Lieutenant:* Cadet Donald L. Zimmerman; *Second Lieutenant:* Cadet Michael H. Williamson; *First Sergeant:* Cadet Joe A. Spears.

UNIVERSITY OF IDAHO COMPANY, University of Idaho, Moscow, Idaho—*Captain:* Cadet Warren G. Hawley; *First Lieutenant:* Cadet Larry P. McDonald; *Second Lieutenant:* Cadet Gary G. Sturman; *First Sergeant:* Cadet Michael S. Floan.

UNIVERSITY OF TEXAS COMPANY, University of Texas, Austin 12, Texas—*Captain:* Cadet Donald Raynsford; *First Lieutenant:* Cadet Charles C. Mason; *Second Lieutenant:* Cadet Don K. Meier; *First Sergeant:* Cadet Mark S. Smith.

V. RAYMOND EDMAN COMPANY, Wheaton College, Wheaton, Illinois —*Captain:* Cadet Ardon Toland; *First Lieutenant:* Cadet Robert Adolph; *Second Lieutenant:* Cadet Bruce Anderson; *First Sergeant:* Cadet James J. Cicero.

Charter presented by Dr. V. Raymond Edman, President of Wheaton College, on 3 January. Captain Toland accepted for the Company. Ceremony was held during annual ROTC banquet. Meeting 30 January was built around theme of summer ROTC camp: film was shown, and Cadets Lindstrom and White spoke on their experiences at camp.

VALLEY FORGE COMPANY, Valley Forge Military Academy, Wayne, Pa.—*Captain:* Cadet David Sholly; *First Lieutenant:* Cadet George Freeman; *Second Lieutenant:* Cadet Robert Wood; *First Sergeant:* Cadet Ralph J. Hornaday.

VIRGINIA POLYTECHNIC INSTITUTE COMPANY, Virginia Polytechnic Institute, Blacksburg, Virginia—*Captain:* Cadet John B. Rose; *First Lieutenant:* Cadet Bryan L. Childress; *Second Lieutenant:* Cadet Ronald G. Beck; *First Sergeant:* Cadet Dale E. Hymes.

WASHINGTON AND JEFFERSON ROTC COMPANY, Washington and Jefferson College, Washington, Pennsylvania—*Captain:* Cadet John C. McEwan; *First Lieutenant:* Cadet John A. Wester; *Second Lieutenant:* Cadet Geoffrey W. Bennett; *First Sergeant:* Cadet Thomas A. Halter.

WEST TEXAS STATE COMPANY, West Texas State College, Canyon, Tex.—*Captain:* Cadet Gaylon L. Johnson; *First Lieutenant:* Cadet Jackie J. Alexander; *Second Lieutenant:* Cadet Ralph D. Gowen; *First Sergeant:* Cadet Sam W. Hodges, Jr.

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